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HORSE-POX.

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Variola Equina.—The prevalence of this disease in horses in the city of Montreal and surrounding districts, in an epizoötic form, renders it of more than special interest to veterinarians; hence we present them with some remarks on the disease.

That the disease is not new there can be no doubt; but we are not aware that it has ever been described in Canada till we published an account of its existence in 1877, during which year it prevailed nearly as extensively as now.

By some authorities only two forms of Variola are supposed to exist, viz., Small-pox in man, and in sheep; an idea which, strange to say, was brought forward at a meeting of medical men recently held in London, England, to discuss animal vaccination. The February number of the VETERINARY JOURNAL, referring to this meeting, says:—"Veterinary pathologists will be rather startled to hear that there are only two kinds of Variola, human and ovine! that Vaccinia is only human Variola modified by the cow, though all attempts at producing the former by inoculation with the virus of the latter, have failed in latter days, though it was easily accomplished formerly; and that Horse-pox was only observed by incompetent foreigners."

That true Variola is seen in most of the domestic animals is well known; that there are distinctive and peculiar types essentially varioloid, but differing in character and symptoms in the

different species, seems not to be generally understood among members of the medical profession. It is a fact, nevertheless.

True, the disease in horses and cattle is of a much milder form, and not so fatal or contagious as the human and ovine variety; yet the true varioloid nature of these diseases is quite as distinctly marked.

The idea of the equine form of the disease being merely human Small-pox modified by the peculiar organisation of the horse, is quite untenable. The celebrated French veterinarian, Chauveau, has refuted this idea by experiments. He has inoculated cattle with human Small-pox, obtained papular pustules quite different from horse or Cow-pox, and re-inoculation of man with lymph obtained from the pustules has produced Small-pox in man.

Lymph from Horse-pox or Vaccinia.—The distinctive features of Vaccinia, and its true varioloid nature, are amply proved by the successful prevention of Small-pox by its influence on the system by vaccination.

Horse-pox is communicable to man and other animals; it is easily produced in cattle by inoculation; the number of grooms to whom the disease has been communicated, and the distinctive features, and regular course and termination, so closely resemble vaccination, as to leave no doubt as to its nature being variolous.

The Period of Incubation.—The time elapsing from the introduction of the virus until the manifestation of the symptoms, varies from three to eight days.

The initial symptoms are slight dulness; disinclination to exertion, and usually a swelling of one or more of the limbs; with a slight fever, evidenced by a quickened pulse and elevated temperature. The part of the body on which the eruption is about to take place is swollen and painful, the skin when colourless is red, the hair bristly, and it feels rough and nodulous. At this time the fever is high, and the animal moves reluctantly, the swelling being painful to the touch. The appearance of a vesicular eruption, which soon bursts and discharges a glutinous straw-coloured serosity, emitting a very strong and characteristic smell, enables you to recognise the disease as soon as you enter

the stable. With the eruption, in most cases, the fever subsides considerably.

The characteristics of this eruption differ with its seat. When occurring in the hollow of the pastern, which it does in about ninety per cent. of the cases, the vesicles, at first, are distinctly marked; but owing to the contagious nature of the discharged lymph, self-inoculation ensures the extension of the eruption in the course of its gravitation. The movements of the leg, the flexion of the joints, displace the scabs, and thus aggravate the affection; so that in the hollow of the pastern we usually find an extensive confluent condition of the pustules, extending to the hoof, at first covered by a clear or amber-coloured, offensive-smelling lymph, which agglutinates, forming crusts more or less adherent in places, the swelling often extending up to the body, and the pain and fever being considerable. This condition may exist in one leg only, or it may affect two, three, or four; but one is usually worse than the others.

In some cases, the eruption and swelling are inconsiderable; in others, where, by ignorance of its nature, attempts are made to heal it by poulticing or astringent dressings, large pustules and extensive suppuration of the lymphatic glands in the groin ensue, which usually result in permanent thickening of the leg. When the eruption occurs in the hairless skin between the thighs, its vesicular and subsequent pustular characteristics are distinctly marked. If the animal is kept at work, the friction destroys the vesicles, pustules, and dessicating pock, and we may find it more or less confluent, and accompanied by considerable swelling of the udder in the mare, and in the sheath of the male animal; often extending along the belly to a considerable extent.

In some cases, the mucous membrane of the mouth and nostrils is the primary seat of the eruption, when the vesicles are well marked, but never reach the desiccating condition, owing to the fluids of the mouth or nose washing them off. From rubbing the affected leg with the muzzle, the mouth, lips, and nose frequently become inoculated. Several very well-defined cases of this kind have occurred within the last few weeks, and are now under treatment.

In all these cases, we generally find diffused eruptions running up the legs, and over the body. In some, the inside of the ear has been the seat of the eruption; in fact, while the hollow of the pastern would seem to be the principal seat of the disease, no part of the body is exempt from it.

When the disease is allowed to run its course without interruption, it attains its intensity about the ninth day; after which it gradually desiccates, brown adherent scabs form, which, in ten or twelve days more, will separate spontaneously and drop off, or may be washed off, leaving the surface completely healed but decidedly pock-marked.

When horses are kept too long at work, or improperly treated by which means the regular course of the disease is prevented, or interrupted, the skin and deeper tissues become highly inflamed, extensive sloughs and deep fissures are formed in the heels, which are tedious and troublesome to heal; recovery is thereby protracted, and is always more imperfect, as thickened skin and hairless patches are produced.

The disease is never fatal, and when properly treated, especially if not too much interfered with, it will run its course in about three weeks, leaving the animal none the worse.

In the grooms and one of the students of the Veterinary College, who were accidentally inoculated, it produced symptoms which were identical with those of vaccination. Most of them were affected on the hand. For about three days they complained of lassitude, itchings and swelling of the hand, with a vesicular spot with a diffused red areola, the swelling in most of them extending up to the arm-pit. On the maturing of the vesicles the fever subsided, and the regular stages of vesicle, pustule, and desiccating pock, followed one another in regular succession, the scab falling off about the tenth day from the appearance of the vesicle, leaving a well-marked depression of the cuticle resembling in all respects that produced by vaccination.

SURGICAL AND PATHOLOGICAL NOTES.

BY J. WOODROFFE HILL, F.R.C.V.S., WOLVERHAMPTON.

Cancerous Disease of the Liver and Spleen, with Complications.—I have sent, per train, the abdominal and thoracic viscera of an aged retriever dog (about nine years). The following is the history of the case:—

On the 13th of this month I was requested by Miss Walker, of Bromley House, Penn, to visit the dog as to indisposition. I found the patient dull, with drooping head, downcast countenance, and disinclined to move; when made to do so, the gait was stiff. There was a general tympanitic condition of the abdomen, with marked fulness and tenderness over the hepatic region; the respiration was quickened, and pulse hard. I was informed that four large doses of castor oil had been administered, but without producing any movement of the bowels. I gave it as my opinion that the liver was the seat of mischief—that the organ was blocked, and its functions suspended.

The patient was removed to my infirmary, and enemas were given, which brought away a quantity of orange-coloured matter. A dose of aloes and calomel was afterwards administered; but this was soon returned, together with a quantity of bile. The right side over the region of the liver was rubbed with stimulating liniment, and the animal made comfortable. All food being refused, milk and lime-water was administered.

14*th.*—Condition about the same; food still refused. Bowels constipated; urine scanty and high-coloured; membranes yellow-tinged; patient continually lying on the abdomen. Enemas and liniment to side repeated.

15*th.*—Bile vomited; breathing more laboured, and pulse increased; hepatic pain increased; bowels unmoved. Castor oil administered, and general treatment as before.

16*th.*—Oil acting freely; patient very weak and stiff, and would only lie on the cold ground. Brandy and egg was administered; this was the only sustenance not rejected.

17*th.*—Weakness greater; general symptoms increased in severity. Despite various measures adopted, the patient—some-

times better, at others apparently dying—succumbed on the 21st.

Post-mortem Examination.—This revealed very extensive disease of the liver. In mass it weighed 4½ lbs., the greater portion being morbid growth. On both surfaces, and from the edges of the lobes, large cancerous tumours (encephaloid)* were present, two being fully as large as a hen's egg, lobulated, and with a broken surface; while various parts of the gland were dotted with prominent yellow spots of various size—some underneath the serous coat, others appearing above, with broken and ulcerated surfaces; some being extremely vascular and angry-looking, some of a dirty yellow and cheesy appearance, and others a rusty brown, and gangrenous. I made no section, in order that you might inspect the mass as it was. It is somewhat changed in colour, as I have kept it a couple of days to make sketches. The free portion of the gland, when first seen, was of a greenish-orange tinge, and had a nutmeg appearance. The gall-bladder was full of bile.

The spleen weighed 11 ounces; no portion of its surface was broken, but nodulated tumours were visible in several places, especially towards the edges.

The kidneys were large and pale, and surrounded with a fair amount of fat.

The stomach had slight patches of inflammation on the internal surface, but there appeared no organic disease.

The intestines were not opened.

I observed no deposit in any portion of the mesentery, though in many places it was attached to the diseased mass of liver, two pieces of which you will find detached with it.

The heart weighed 11 ounces; it was pale and flabby. The outer wall of the right ventricle was exceedingly thin, being barely the 16th of an inch; whilst the corresponding wall of the left ventricle was ¼ of an inch thick. The muscular structure was of a straw colour, and on section had a granular appearance.

Lungs congested.

As to the cause of the cancer, that must be speculative. I have known the dog for some years, and attended him at various

* I give this opinion from an external examination.

times, but only for accidents; and he has never before, to my knowledge, exhibited any symptoms of liver disorder. Prior to this fatal illness, I had him under my care in the early part of last year for an accident to the tail; and I think this worthy of mention, as it may throw some light on the case. He was brought into the infirmary with his tail bandaged up, the information I received being, that a wheel had gone over and broken it some three weeks before, and the gardener had set it by thus bandaging in Miss Walker's absence. On removing the bandage, off dropped the tail, a mass of putrefaction; a portion of the stump, which was also gangrenous, had to be immediately amputated. Daily dressings with nitrate of silver, and cleansings, soon effected a cure. Now it was quite evident to Miss Walker (who stood by) and myself that this tail had been literally crushed through in the first instance, and bound up with the living portion; hence the bandage and the pretended setting.

Under these circumstances, then, might the seeds of cancer be generated by the adjacent mass of daily increasing corruption, and be transferred by the lymphatics and veins to other parts of the organism? Its power of dissemination is wonderfully borne out in the human subject. According to Dr. Budd, there is clear proof that this may take place in two ways: "1st, by inoculation, or by the mere contact of a sound part with a part affected with cancer, without any vascular connection between them. 2nd, by cancerous matter conveyed by lymphatics and veins to other parts of the body."

"The dissemination effected in this way usually takes place in the direction of the current of blood or lymph. This is well shown by contrasting the organs that become infected from cancer of the breast, a part from which the blood is returned immediately to the vena cava, with the organs that become infected from cancer of the stomach, a part from which blood is returned to the portal vein." After giving several illustrations, he observes: "All these instances are sufficient to establish the fact, that cancer often becomes disseminated by means of cancerous matter which is conveyed onwards in the venous current. We have additional proof of it in the points of resemblance before noticed, between secondary cancerous tumours of the lungs and

liver, and the scattered abscesses which form in these organs in consequence of purulent Phlebitis."

I shall be glad to learn your opinion on this case.

[The viscera were so decomposed on arrival as to be unfit for microscopical examination. The liver, however, seemed to be affected with cancer. The case appeared to be rather of an unusual character.]

CASES OF HORSE-POX.

BY "DIOGENES."

THE following is a brief account of two cases of Horse-pox (or "Stomatitis Pustulosa Contagiosa"), as they occurred under my observation.

CASE I.

A bay carriage-mare, five years old, had only been purchased a few days, and on April 5th her attendant informed me she had a sore place just behind the ears. I attended and examined the animal, and found a somewhat diffused sore patch in the position before-named. It was very tender to the touch, it having been abraded by the bridle. There was some swelling round the patch, and the superficial lymphatics were corded. Pulse 44; respiration normal; visible mucous membranes slightly injected; temperature per rectum 102°; submaxillary glands swollen, but soft to the touch and rather tender. I examined the lips and mouth carefully, but could not detect any vesicles, but there was a faint, disagreeable odour pervading the breath; the appetite was good. I prescribed half-ounce doses of the sulphate of soda, in dry bran-mash or a pint of water, twice daily, and a water-pad to be kept on the inflamed part.

6th.—Swelling round the patch much less; pulse 42; submaxillary glands still swollen and tender; respiration normal; temperature 102°; slight cough; appetite good. On the top of the withers, and on both sides, reaching as far back as where the saddle would rest, was an inflamed patch, studded irregularly with a pustular eruption, in different stages of development,

though none of the pustules had yet burst. There was swelling, heat, and some cording of the superficial lymphatics; and as there seemed a chance of its becoming confluent, and perhaps losing a patch of hair, I directed the water-pad to be placed on the part, and the Sodæ sulphite repeated night and morning; diet to consist of mashes and hay.

7th.—Symptoms much the same, except that the temperature rose to 103°, and pulse 46; continue same treatment.

8th.—Patch behind the ears crusted over; several pustules on back discharging a thick, amber-coloured fluid, of the consistence of thick gum; swelling less; pulse 44; temperature 102°. Several small nodular enlargements, about the size of a small pea, were now to be felt about the quarters, which were tender to pressure. Ordered medicine to be given once daily, and continue water-pad.

12th.—No important change took place until the 12th. On this day the pustules on back were healing; the nodules about the hind quarters were less hard, and not so tender, and there was a rather large sore patch on the inner aspect of the heel of the off hind limb. This was discharging the before-mentioned amber-coloured fluid; pulse 42; temperature 101°; submaxillary glands less swollen and less tender. Discontinue medicine, leave off pad, and apply oil to encrusted parts.

From this until the 18th the animal continued to progress favourably, the nodular enlargements *never* discharging, the morbid material appearing to get vent at the patch on the off heel.

This patient went on favourably, the pustules healing, and the large ones, when healed, leaving the characteristic white spot. On the 26th she was taken out for a drive, and nothing was perceived unnatural, except that she sweated rather more than formerly.

Case II.

The subject of this case was a very pretty bay pony, a gelding, six years old, a great favourite, having been much petted. On April 14th I was sent for to see him, but being absent on my rounds, the groom administered a cordial and diffusible stimulant, as the animal was shivering, he said. On my

arrival, which was shortly afterwards, I found my little patient standing in one corner with his back arched; extremities cold, though the groom had placed three rugs on him; pulse 48, small and hard; temperature 103°. I gave some Æth. chlor. in cold water, directed the legs to be well hand-rubbed, and woollen bandages to be applied to the limbs. Called again at 10 p.m.; pulse 46, much fuller and softer; back not so arched; eyes not so anxious; had eaten a little mash; temperature about the same; mouth hot, and breath fœtid; submaxillary glands somewhat swollen and tender; examined mouth, found no vesicles; mucous membranes slightly injected. Ordered half an ounce of Potass bitart. to be given in linseed tea.

15*th*.—Pulse 46; body hot; temperature 103°; sickly odour still pervading the breath; had eaten a little mash; pustular eruption appearing here and there about the neck, shoulders, and elbows on near side, and a patch as large as a shilling at the root of the mane, just where the collar would rest. Ordered Sodæ sulphite ʒiij. twice daily; mash and hay diet.

16*th*.—Pulse 44; temperature 102°-1; breath less fœtid; extremities warmer; pustules oozing from their apices the amber-coloured gummy fluid before-mentioned. Discontinue medicine; allow a little corn. Very little alteration until the 21st, except that small nodules might be felt generally over the skin, and one pustule formed about the root of the tail, superior aspect. This patient continues to progress favourably, the crusts falling from the pustules in succession, and he is now convalescent.

I have just had a grey cart-horse brought to me with his legs a mass of ruptured vesicles; but he works regularly, and his health does not appear to be much disturbed.

A REMARKABLE CASE OF ANIMAL ELECTRICITY.

BY W. WOODS, F.R.C.V.S., WIGAN.

[The following remarkable case is published, at our request, by one of our most competent and careful contributors. The subject of dynamic electricity of organised beings is one of great interest, and even of importance, and has at various times received much attention. For very many years it has been known that electricity was generated or developed in animals under various conditions, and most people are familiar with the faint crackling sounds and bluish sparks produced by

combing the hair of certain females, or stroking the fur of a cat in the wrong direction; and in Canada and other cold countries it has been often remarked that the human body is converted into a conductor of electricity, it being possible to light a gas lamp, when the necessary electrical excitement was induced, by merely placing the finger near the jet. The *Globe* lately referred to some facts given by a Mr. Mitchinsor, an African traveller, in a narrative of his exploring expeditions in West Central Africa, which bear on this subject. He states that one evening, when striking an African native, in a moment of anger, with a cow-hide whip, he was astonished to see sparks produced, and still more surprised to find the natives themselves were quite accustomed to the phenomenon. He subsequently found that a very light touch, repeated several times, under certain conditions of bodily excitement, and in certain states of the atmosphere, would produce a succession of sparks from the bodies of native men, as well as native cattle. A lazy nigger, it seems, yielded none of these signs of electricity—a rather unfortunate circumstance for his more active brethren, who may possibly come in for a share of undeserved flogging at the hands of future travellers in search of electrical phenomena among the human race. Mr. Wood's case is unique, so far as we can ascertain, and it would have been interesting to have noted the effect of touching the cow in a dark place. The animal appears, for the time, to have been a veritable magazine of electricity—a kind of *Gymnotus electricus*, in fact, only, unlike the South American eel, the cow herself received as well as gave the shock.]

ON the 21st of February last I was requested to visit a dairyman's cow which had calved the previous night, the owner stating that he did not understand what was the matter with the animal, as every time he touched her a trembling sensation ran up his arm, and he involuntarily twitched it away. He seemed perfectly astounded, and kept impressing it on me that he was not afraid of the cow, but he could not help shaking when he touched her. I visited the cow, and when I placed my hand upon her, I received a perfect electrical shock, the animal evidently receiving the same, for as often as she was touched by any one she bellowed, and jumped forward apparently terrified. The pulse and temperature it was perfectly impossible to ascertain. The owner was unable to milk her, as she went almost wild when touched, but was perfectly tranquil when not meddled with, with the exception of a wild look about her eyes. No matter how many times the animal was touched, the same result followed. With great difficulty I administered a strong saline purgative, combined with fifteen croton beans, followed in a few hours by a pint of linseed oil containing 3ss. chloroform.

At night the cow was considerably better, and the following morning I was pleased to find her quite convalescent.

Editorial.

THE PROTECTION OF THE PUBLIC AND THE PROFESSION.

THERE is at last the prospect of an attempt being made to protect the public and the profession from imposition and injury, by seeking to obtain an Act of Parliament to render it a penal offence for any unqualified person to assume the designation of Veterinary Surgeon, or any other title which may be conferred upon members of the Royal College of Veterinary Surgeons. It is a matter for much regret that the attempt is only to be made now; but better late than never. Every one interested in animals and their humane treatment, no less than in the promotion of veterinary medicine and the preservation of public property, will, we are certain, share with us in the hope that the effort to obtain this enactment may be crowned with success. For years we have urged the necessity for this legal protection of our title, and have often and over again demonstrated that the public and humanity will gain even more largely by it than the profession. There is nothing of the "Free Trade" cry against trade "Protection," to be dreaded in this movement. It is simply instituted to guard the public from imposition and loss, to protect animals against improper and cruel treatment, and to shield the profession from the wrongs and injury incompetent and irresponsible persons may, and do, inflict upon it, by pretending to possess qualifications to which they have no claim. It is grossly unjust to allow such imposition and injury, and we have all along felt certain that such a state of affairs only needs to be exposed to be remedied. It is a duty imposed on every loyal member of the profession to strive to the utmost of his power to procure this penal clause, and so rescue his calling from serious peril and unmerited obloquy. We are quite sanguine of success; but feel that success will not be achieved without labour and anxiety, and the aid of those in Parliament who are interested in everything likely to promote the public welfare.

ON THE PROSPECTS OF VETERINARY STUDENTS.

BY J. H. STEEL, M.R.C.V.S., ROYAL VETERINARY COLLEGE, LONDON.

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OCCASIONALLY a young man will find that collegiate successes, and a sense of fitness for scientific work or teaching, qualify him for some one of those scientific posts which occasionally require filling. He will need all his energies and influence to place him in such a position, for in this country a man must generally have given public proof of his fitness for such a post. Abroad they often decide the matter by examination, which includes the delivery of lectures and demonstrations in the case of candidates for teaching posts. In England, a man who aspires to a public position must stand the test of publicity, must be able to inspire a certain amount of respect, to speak and write with facility, and to constantly court criticism. He must be prepared to work for the profession, to be found fault with, and never to give reason for calumny. This is *not* easy work, and since his scientific position

will be considered, to a very great degree, payment for his services, he will not find that, given an equal amount of professional skill, scientific work is so remunerative as private practice. Posts of this kind at present are very few, but, perhaps, as numerous as the supply of men fitted for them; at our schools, at agricultural colleges, the Brown Institution, etc., vacancies occasionally occur, while we sometimes hear of Government appointments in the colonies. The status given by these positions entails in due time the labours of professional politics, and constant keeping up with the times, whether in acquaintance with the latest scientific work or in forwarding professional movements. There are some rewards for such a life of toil. Professional success of pupils, happy completion of scientific work, the applause of fellow-workers are dear to the soul of the ambitious man.

There is a growing fashion among our large business firms—railway companies, brewers, and others—to have their own veterinary surgeon. They generally give a moderate remuneration, and allow the holder of the post to utilise his spare time in private practice. They expect the officer to exercise general supervision over the health of their animals, to zealously exclude Glanders and such diseases from their stables, to ensure the purchase of only sound and suitable horses, and to restore all sick and injured animals to health as soon as possible. They frequently demand more than a professional man is prepared to do—book-keeping, time-taking, etc., but when they do so, must be taught the position of a veterinary surgeon; such posts give a young man a fair amount of practice and sharp pecuniary supervision. His employers look closely to his results, and do not hesitate to say when they are unsatisfactory. The work is not light, so that the permission to practice privately is almost a dead letter, so that we must not look upon these appointments as sufficiently lucrative to be considered permanent. They are means of attaining skill, and are posts of observation for something better. They serve very well until a young man attains that gravity of demeanour, and amount of development of facial capillæ so useful to the practitioner as inspiring due confidence.

An *assistanceship* has the advantage of professional supervision by the employer, necessarily a man of greater experience. It enables a young man to learn much, and the minutiæ of varied forms of practice; he can thus fit himself for his duties when he has the opportunity of launching into independent professional existence, and this will give him that practical habit of mind which will materially cut short the period of professional waiting, essential to the commencement of practice "on his own account." He also is compelled to attend to professional duties, which is a useful stimulus to those of us who tend to laziness; and he will be enabled to be sure to go only with a well-established practitioner, with whom he can see much professional work. If he can manage to become assistant with a view to partnership, let him enter into a definite agreement. Many a practitioner advanced in years, who begins to find professional harness hang rather heavily, and who has no son to succeed and help him, though with a fair competency, hardly likes to abruptly break the ties which bind him to his life's work, he can well manage to glide gently into the repose of which his labours have rendered him desirous—such a man ought to readily embrace any opportunity of introducing fresh blood and modern ideas into his business, and the preliminary assistanceship stage enables him to select a fit successor.

Partnership is often adopted by the young man with some spare money. There are several causes which may induce an established practitioner to take such an one in hand—rapid spreading of practice, entailing increased work and establishment; need of money to bring about such an increase as will suffice for support of two; and the need of a working partner, to relieve excessive labour and secure relaxation essential to health and well being. These are

legitimate reasons, but the young man should always well survey the course before him, for it is not always so satisfactory.

When a young man wishes to start in practice for himself, he may do so at home or abroad. As a rule, it is not a good thing to go into a little-known country, on speculation of its proving a fit field. Some official post is advisable as something to fall back upon. *India* supports a few English private practitioners, and might more. The colonies are developing large cities, which require professional men; the value of live-stock in them, however, is generally low, and therefore practice of veterinary surgery unremunerative. Local influence often gives a man a good start in such cases, but he must be prepared for the shrewd practical bearing of colonial men. Foreign countries seldom are open to English practitioners, for veterinary practice is often regulated by Governments, and English qualifications not recognised. America is a very decided exception to this rule: an able well-qualified man, it seems, can there gain a professional position and remuneration with rapidity.

Practices are constantly for sale, and the purchaser must remember that he is only able to purchase the "good-will." Much of the value of the bargain depends upon his skill in keeping clients together. Some customers prefer to retain the services of the oldest practitioner in the place, and will leave the young fresh arrival. Others—indeed many—will try you, to see "How you get on." Some will only have been awaiting some decent opportunity of changing their veterinary adviser. Altogether, however, a good man need fear little from these influences. A small extra degree of energy will hold the practice together. He will not repent his bargain. A man imperfectly acquainted with professional work will find a "good-will" but a poor return for hard cash. Some will prefer to keep themselves going with their money while they "make a practice." In this, energy and proper choice of locality will probably make them successful, but it is hard work, and requires, as a rule, a good deal of pluck and dogged determination, as well as unlimited capital. This is not always so, for in some parts of the country, it seems, clients crowd to any qualified practitioner who will come to save them from the hands of "quacks." There are not very many such untrodden fields in England and Scotland now, but in Ireland, we are inclined to think, there is "lots of room." A man who tries new localities must be prepared to combat malign statements of the empirics, and will find that to maintain professional dignity is not always easy work. He is doing good pioneering work for the profession, and is an apostle of science. In our large towns and thriving agricultural districts it is not always easy to see an opening. Generally practitioners seem to be as numerous as the place can support, and the latest comer holds the position least favourable in the struggle for existence. He is apt to be looked upon as an interloper by the public as well as by his co-professional brethren, and will often have to wait for some time until he becomes established.

These conditions have in the medical profession, and in ours to a much less degree, produced specialists and literary professionals. The latter seldom, among veterinary practitioners, soar higher than essays contributed to local papers or read at local meetings of agricultural societies. We are not inclined to find fault with these. When properly executed and carried out, general essays should tend to inspire employers of veterinary surgeons with a sense of their own ignorance of disease, and of the value of veterinary science. Care must be exercised to avoid any tendency to treat rival practitioners with disrespect, and the resort to undue advertisement of an unprofessional character. *Specialism* in veterinary surgery enables us to recognise the consulting practitioner and the canine surgeon, and certain others. Thus we lately heard of a veterinary dentist in America, and we are informed of a gentleman of high professional standing who is about to make the eye a speciality in the same country. So long as all veterinarians have to pass a

general examination, and we avoid the "speciality degree nuisance," which tends to disintegrate the medical profession, the inclination to follow some special branch of practice can do no harm. It is a necessary consequence of the surrounding conditions of each practitioner, which produces salutary diversity.

This leads us to review the different kinds of practitioners. To the best of our ability, we have already given our ideas of the nature and duties of the army practitioner, professor, scientific officer, and executive government officer. There are two professional positions which we may hastily pass over as not likely to prove attainable by a young man—those of administrative government officer, and consulting veterinary surgeon. The latter should have made examinations for soundness a speciality, should have a general acquaintance with professional work, and should have done something which specially tends to give him the confidence of his co-professionals. In proportion to the position which he occupies should be his fees; he will require to keep a good establishment, and to be plausible and ready-witted.

General practitioners may be divided into those of town and country. The country practitioner requires a general acquaintance with mixed practice, to be accustomed to work with a deficiency of assistance, and to have a constitution fitted for long journeys at all hours and seasons, with irregular meals; he must be especially skilful in certain operations, as castration and parturition cases, and will find a general knowledge of farming systems valuable. His clients will be rough and hearty but shrewd men, who are familiar with domesticated animals, and often not by any means contemptible hands at diagnosis. He will find that his clients will appreciate him more, and rank him as one of themselves, if he shows up at a "meet" occasionally, and rides well and with judgment. He must be prepared for an occasional "brush" with an unqualified man, and if he lives in a small town, must exercise great care as to his general behaviour, for in small places gossip is rife and not always unexaggerated. He must keep a few good horses in his stables, and must especially obtain one or two of those long, low mares, with some breeding, that many of us know well. They will do their rounds to-day, and be ready again to-morrow, are quiet and business-like, and know how to make the most of every opportunity to rest. They are safe for night-work, and can find their way home from anywhere. If you do not know the stamp of animal I allude to, correct your education in this matter as soon as possible; and when you get such a servant, do not part with her readily.

Town practitioners have generally a smaller range and more opposition. Their practice is mostly among horses, and they find that paved streets and roads render their carriage and horse bill for wear and tear somewhat heavy during the year. They are generally in a position to manage their business more on system than their brethren in the country, to have more quiet evenings and hours of relaxation. They require to know the ins and outs of horse-dealers, to attend to examinations for soundness, the treatment of lameness, etc. Often they find a forge essential to the keeping of their connection together, although many prefer to underlet a forge situated on their premises, which I look upon as rather a good plan. The stamp of practice in town is much varied. In low-class neighbourhoods it is rough but remunerative. Cases of Glanders, Grease, Canker, etc., frequently occur, and the patients are huge dray horses, or broken-down, worn-out nags, terminating an easy life in that purgatory, a night cab. In aristocratic neighbourhoods it is said that there is one great drawback to success—the difficulty in getting bills settled. The practice is highly interesting, for the patients are well-bred and kept, but a drawback is the obtrusive stud-groom, who attempts familiarities, but

must soon learn his place; also the knowing stableman, and the obsequious dealer. Under no circumstances does a practitioner more constantly require to rest upon his professional dignity. In these town practices litigation frequently necessitates appearance in the law courts. This should not be a difficulty to a man who knows his duty. Regardless of parties, he recalls all he knows of his case, carefully balances it in his mind, forms his conclusions, and by straightforwardness baffles the cunning of those unaccustomed to such qualities. Among the wealthy business classes a good connection may be formed; they often endeavour to exert their dignity, but pay well and promptly. Contract work is especially useful as a means of securing a fixed income and enabling the practitioner to have a salutary degree of independence. It is fairly remunerative, and forms a useful nucleus of a practice—prices vary much in different towns. The system attains its greatest development among the great business firms of the north. In the black country the veterinary superintendent of pit-ponies will find that subterranean hygiene is no easy task. He will meet injuries of a frightful extent, chronic ulcerations and diseases of a low type; and must be prepared to descend "into the very bowels of the earth" at all sorts of hours, and must not expect to find the journey one of luxurious ease.

To many of you these descriptions of practices will be an oft-told tale, but not to all; many of you will be able to suggest additions to the list.

When in practice, we shall often find ourselves connected with agricultural societies, either as honorary members or as professional officers in cases of shows—in some cases, even as judges; also we may be called upon for professional opinions on contagious disorders and cases of cruelty. In all such emergencies we will simply require to act independently, and as our scientific judgment suggests. Beware of sentiment, especially in cruelty cases. It is at daggers-drawn with science, and so cannot prove beneficial to you. We should obtain entry, when possible, to medical and other scientific societies—it will improve our position, and that of the profession. We may, perhaps, not be able to make time to take any very active part in their proceedings, but we may often be able to put in a word at the right time and so to command respectful attention. An occasional letter to a local paper, or a "leader" written for a friendly editor, will prove useful to a practitioner; but let him have a care lest the literary man render him ridiculous by ill-advised puffing. Contributions to general literature seldom come from the pen of the veterinary surgeon, though these would be valuable results of leisure hours, but we have been described as "not a writing profession." Too few veterinary practitioners have favoured us with professional works, but this only serves to throw into greater relief those who have thus "done the State some service." Continental veterinarians have even contributed to general medical literature works much appreciated, but we have not *yet* done so.

In performance of his duties to the profession, a practitioner must be constantly zealous in maintaining its *status*, by upright and sober behaviour, by independence of feeling and sentiment, by gentlemanly deportment, and by careful selection of associates; also by defending it with tongue and pen. He should use his best endeavours to promote professional unity in consultations and the exigencies of practice, in his writings, and by unanimity in law courts, and avoidance of litigation he must guard, lest "difference of opinion alter friendship." A most powerful means to this end he will find in veterinary societies, which teach men to know, respect, and appreciate each other, especially when the meetings are associated with excellent dinners, after the custom adopted in some parts. It is incumbent on every veterinary surgeon to take interest in professional progress, to jealously examine every proceeding of the ruling powers, and to make his voice heard when necessary at

annual meetings, and not to spare his communications to professional journals on political questions; to regularly attend annual meetings, and to give his vote for the best and fittest men, sinking all personal feeling in his professional duty; to promote sociality by attending at the professional dinner after the annual meeting, and to assist the college authorities in educating the coming race of professional men; this he may do by conscientiously educating to the best of his ability, especially in practical matters, young men who come under his care as pupils, improvers, and assistants, as well as by recording his experiences in professional journals, and by forwarding specimens and notes of cases as a basis for lectures and demonstrations.

I have endeavoured to show you what you have to look forward to, and in spite of some errors of omission and of commission, may have directed the thoughts of some of you into new channels.

The profession is making rapid strides, both in general and professional education of its graduates; also in its efforts for the repression of empiricism, for securing due professional remuneration and such privileges as are accorded to human medical practitioners. Text-books are increasing in number and quality, the professional press is becoming more powerful and better known. Government offices are increasing, and we are becoming necessary to the public. With these favourable conditions we have but to advance at a good round pace, shoulder to shoulder, and we cannot fail to attain a victory and secure an advantageous position on the "battle-field of life."

THE ADVISABILITY OF ESTABLISHING SUITABLE AND ADEQUATE CONVENIENCES FOR VETERINARIANS TO MAKE *POST-MORTEM* EXAMINATIONS, ETC.*

BY GEORGE A. BANHAM, M.R.C.V.S.

MR. PRESIDENT AND GENTLEMEN,—As there is little business or matter for discussion to-night, I beg, with your permission, to bring before you a subject which has more or less occupied my thoughts ever since I entered the veterinary profession. It is one, I have no doubt, will meet with strong disapproval, but I hope you will excuse me for venturing to bring it before you; for if you approve of the idea, and consider it worthy of discussion, I shall be satisfied; or if you think it useless and unprofitable, I shall have the satisfaction of knowing that what I think as useful, others, much better able to judge than myself, consider otherwise, and *I* shall have learned something, and hope, therefore, that if one member only profits by a meeting, it cannot be said to be wasted. Moreover, I consider we are all bound, as members of this Society, to lay before the members any suggestion we consider worthy for them to hear, and obtain the value of their opinions on the matter, and so arrive at satisfactory conclusions. Therefore, gentlemen, with this apology, I will lay the subject in question before you for discussion. It is mainly based upon the following questions: 1st. What convenience have the London practitioners for properly carrying out a *post-mortem* examination? 2nd. What means is there for the destruction of animals suffering from contagious diseases? 3rd. How may these objects best be obtained?

I may say that ever since I have had any connection with veterinary science, I have always found a difficulty in being able to obtain proper and adequate facilities to educate myself to recognise the appearances and *post-mortem* lesions of diseases in our patients. May I ask whether we have

* Read before the Fellows of the Central Veterinary Medical Society, on April 15th, 1880.

learnt sufficient morbid anatomy, and know all the *post-mortem* lesions presented in our animals, at the end of our collegiate education? Answering for myself, I say decidedly, No, but that we are only then in the position to profitably commence making autopsies. Therefore, in order that practitioners may become thoroughly acquainted with *post-mortem* lesions—the utility of which, I think, few will deny—we ought to continue our necroscopic examinations of all the subjects which die under our charge so far as we possibly can, and so "follow up" our cases, so that ultimately we might arrive at some satisfactory conclusions.

This, gentlemen, would not only educate us to recognise the lesion, and be more in unison with each other relating to the lesions found, but I think we should also find that in some cases, at least, our treatment would be materially altered, and it would tend to increase our diagnostic and prognostic powers for similar cases in future. It is useless for me to comment further upon the utility of the subject, for they are better known to you, perhaps, than myself. So we will pass on to consider what conveniences practitioners have for educating themselves in this direction, after they have left their *alma mater*. These are very few and inconvenient. Thus, the only three sources open to us are: 1st, The knacker's yard; 2nd, our client's stable or yard; 3rd, our own. The knackers' yards are not very enticing, so far as I know them. We usually find they (the knackers) put as many obstacles and objections in our way as possible. For instance, I have frequently sent word that I would call at a certain time to look at a certain horse, and when I have called, I have invariably found the animal already cut up and in the copper, and a few pieces which looked "rotten" and "black," saved for my inspection, with the epithet, "That's what's amiss, sir," and I know a great number of *post-mortem* examinations end in the same way; and I will leave you, gentlemen, to say how much the wiser we are for such information. Even if the carcase is saved, we have to stand about in a cold, draughty, wet yard, and be very careful how long we keep the men, and what we ask them to do, or we are censured for wasting the men's time, on the one hand, and for spoiling the hide or carcase on the other; and if we are not extremely careful what we say, we are scarcely treated with civility. And finally we have to pay the men well in the bargain, which to most practitioners is so much loss, for I am told few practitioners charge for *post-mortem* examinations. Moreover, by resorting to such places we are, in my humble opinion, lowering ourselves in public estimation. This we cannot very well afford to do at present, and this seems to be an age when people like to see things done nicely; and how much nicer it would sound if we told our client that, if he would allow his animal to go to the "Veterinary *post-mortem* room," or "mortuary" (or whatever name you care to give it), we would make a *post-mortem* examination, etc.

As far as using our clients' or our own stables or yards for such purposes is concerned, I will simply leave to your own conscience to say whether either places are adapted for the purpose. These, then, gentlemen, are the means at our disposal for our work.

Now, must we continue in this dirty, cold, wretched manner, and be always dependent upon these uncivil horse-slaughterers for any little aid we require in scientific investigation? or has the time arrived when London practitioners at least should begin to see a way to improvement?

Looking at the second question, viz., the means for destroying animals affected with contagious diseases, I must say, so far as I am acquainted with them, they are very inadequate. If a horse, for instance, suffering from Glanders is taken to the knacker's yards, he is killed and boiled, and sold for cat's meat in the usual way, and I believe the hides and bones are also utilized.

If I am wrong in this matter, I ask you gentlemen who have had more experience in these matters than I have, to correct me. I will not dwell upon the good or evil effect of this method, but I ask you to give free ventilation to your valuable opinions upon this matter for the benefit of our members. I believe the Privy Council orders are that they should be burned, or subjected to air of a certain temperature, for a fixed time; but is this ever done? or are there conveniences for carrying the order out if enforced? If not, ought we not, for example's sake, to establish such a furnace, where animals affected with contagious diseases could be "cremated" at a nominal cost to the owner?

We have already too often seen that government authorities seldom, if ever, take up *our* cause. If this could be done, would it not bring us under their notice, by showing them that we have the good of the public at heart, and endeavour to advance without their aid—if we can only do so without a great pecuniary loss?

These, gentlemen, are the points I wish to discuss with you to-night, and I will provisionally draw your attention to the following questions, which I hope I shall be able to show you are fully substantiated, and worthy of your consideration.

The questions are—Are there any means by which the London practitioners can provide a suitable room and convenience for carrying out their *post-mortem* examinations? and also for the proper destruction of animals affected with contagious diseases? I will, for argument's sake, answer both these questions in the affirmative, and will endeavour to substantiate this answer by picturing an establishment which might be formed, and then point out the *pro et con* arguments as they present themselves to me.

Thus, a limited company could be formed, and a suitable piece of land (or even one of the existing knacker's premises) purchased, upon which suitable buildings should be erected and fitted with all the necessaries for properly conducting and carrying out the business of horse-slaughtering. It should also be fitted with proper conveniences for the destruction of animals affected with contagious diseases, and a room where practitioners could make a *post-mortem* examination with all the comfort that such circumstances will allow.

The arguments in favour of such an establishment as this are numerous. Thus:—

(*a*) Practitioners would have a convenient and properly-fitted place for examining dead animals.

(*b*) It would also serve as a place for procuring pathological and physiological specimens both for veterinary and human medical science and teaching schools.

(*c*) It would serve as a place where the veterinary students at the Camden Town School could be brought by their teachers to have *practical demonstrations on morbid anatomy, and learn what to look for, and how to find post-mortem lesions*—a branch of veterinary science which, I think you will all agree with me, is too much neglected.

(*d*) It would serve as a place where subjects could be obtained, and students brought to have practical lessons in *operative surgery* upon the *dead* animal. This would be the means of teaching them how to handle and use their instruments, and properly perform most of the ordinary operations—a branch of science which in itself is well worth erecting a building for, and I am sure it would be well appreciated by our younger members and students.

(*e*) It would be a place where students would be able to obtain any bones or parts of the animals (such as brains, etc.) which they might require for any special study, at a nominal cost.

(*f*) Such a place would render us independent of the present wretched knackers' establishments, which, to my mind, would be a great advantage.

(*g*) For the purpose of properly destroying all contagious diseased animals (especially Glanders); and it would be well to petition the local authorities to enforce persons to send such to this establishment, and that only, thus forming a centre for their destruction.

(*h*) Lastly (but not least), I think it would be a very good establishment for practitioners to invest their money in, for, if properly conducted, it could not help paying a very good percentage; especially if members of the profession would make it a point to advise their clients to send their dead animals to the establishment (which of course they would do if they wished to make a *post-mortem*, or had shares in it).

(*i*) There is one other addition which might be added with great benefit, and I may say it would not be complete without it, and that is, that a *paid veterinary post-mortem examiner* should be connected with it, whose duty would be to communicate the *post-mortem* changes to any of the shareholders who particularly asked him to do so, and in this way practitioners who were unfortunate enough to live a great distance from the establishment, would be able to have the autopsy made for them. And also to take notes of any extraordinary pathological or other changes which attracted his attention in the animals brought during the daily routine of business.

These, gentlemen, are most of the advantages which at present strike me that might accrue from such an establishment.

We will now look on the other side of the question, and see what disadvantages such an institution might present.

Thus, some may think that our connection with such an establishment would be degrading to our profession, and lower us in public estimation. If I thought this for one moment, I would give up all idea or hopes of ever having anything to do with such a scheme; but when I think of the matter in its proper light, all such drawbacks vanish, and I think it would be the same with the public at large, or at any rate with unprejudiced, thinking men, who, in my humble opinion, would neither think it degrading nor useless to the profession, but would, on the contrary, praise and give us credit for the steps we had taken to advance pathological research, etc., in veterinary science. Again, some might say, as it was suggested to me, that it looks rather like a "*doctor setting up as an undertaker*," and I must confess, when viewed superficially, it does; but when we consider what inadequate means there are for veterinary surgeons and students to obtain conveniences for veterinary research, and that such bad regulations are in existence for the destruction of animals affected with contagious diseases, I think most people would forgive us, and look at it in the same light that we do.

We might even be accused of *killing* animals for the purpose of obtaining the carcase for its pathological value, and so forth; but here again, I must say this is only a supposition, and requires to be authenticated before we ought to entertain such ideas, and if we found such to be the case, I have not the slightest doubt we could face and correct the difficulty, with just as much efficacy as those who promulgated such accusations against us, although I am fully aware that such false statements are often very difficult to rectify.

Lastly, some of the local practitioners might say they would be put to a great deal of inconvenience by their local horse-slaughterers refusing them the use of their yards, especially if the knacker happened to find out that the veterinary surgeon was a shareholder; but this, I think, is a very paltry excuse for withholding such a useful establishment, for there can be little doubt that such petty enmity would soon be overcome by time and custom.

Now, gentlemen, I have given the reasons for and against the establishment of such an institution or company, and my reasons for bringing this

matter before you; therefore, I hope you will give free ventilation to your own opinions. Of course, those who care little about making *post-mortem* examinations and pathological research, and providing means for teaching our students, or places for our younger members to learn it, will, I have no doubt, *pooh-pooh* the idea, and say it is useless; these I would ask to keep their eye steadily on the pecuniary side of the question. But, gentlemen, I hope there are none of our members who entertain such ideas of advancement in our profession, and therefore I trust that those gentlemen who have their profession at heart, and are willing to provide and be provided with suitable and adequate premises for such investigation, will side with me, and assist in solving the problem I have laid before you to-night, or suggest a more professional and profitable plan to supersede it, by which we could overcome our difficulty and advance veterinary pathology in this country. Thanking you, Mr. President and gentlemen, for your kind attention, and I hope that my efforts may lead to a profitable discussion, although I must own they are rather short and insufficient, but yet I think I have sufficiently conveyed my meaning and ideas.

THE ROYAL VETERINARY COLLEGE *versus* THE PROFESSION.

In our correspondence column will be found the report of a Committee of Governors appointed to investigate the grievances of the profession against the subscription system of the Royal Veterinary College. From the admissions of this Committee, it will be seen that we were quite warranted in the course we adopted in exposing and protesting against the degrading system of competition the school maintains, a system which no one has yet ventured to defend, and which has done the profession great injury, while it has not benefited veterinary education in the slightest degree. If the recommendations of this Committee are adopted, the injury will be repaired to a slight extent, though the more serious features of the system yet remain. The skill of "learned professors," and the "services of an eminent Professor from London" should be worth more than the unskilled member of the profession who cannot boast of the prefix to his name. Instead of this the governors estimate them at very much less. This is promoting veterinary education!

ROYAL COLLEGE OF VETERINARY SURGEONS.

At the meeting held on May 25th, Mr. George Fleming was unanimously elected President for the ensuing year.

TESTIMONIAL TO PROFESSOR PRITCHARD.

On March 23rd, a meeting of students was held in the Royal Veterinary College for the purpose of presenting an address to Professor Pritchard, on the occasion of his resigning his professorship and retiring into private practice. The address was signed by 180 students, and was presented by Mr. Bartrum, the Secretary. It embodied the sentiments of the subscribers, and their expressions of regret at the resignation of Mr. Pritchard, concluding with an intimation that an artist had been engaged to paint his portrait.

Mr. Pritchard replied in suitable terms.

Proceedings of Veterinary Medical Societies, etc.

ROYAL COLLEGE OF VETERINARY SURGEONS.

Annual Meeting.

The thirty-seventh annual meeting of the Royal College of Veterinary Surgeons was held in the Freemasons' Hall, Edinburgh, on Monday, 3rd May. Principal Williams, of the New Veterinary College, Edinburgh, President, occupied the chair.

Present—Professors McCall, Walley, McFadyean, and Vaughan; Gen. Sir Frederick Fitzwygram, Bart.; James Collins, Esq., Principal Veterinary Surgeon to the Army; Messrs. Aitken, Anderson, Anderton, Baird, C. Baird, Bell, Blue, Borthwick, Boyd, Brock, Brown, Cartwright, Cameron, Connochie, Cunningham, Dobie, Dollar, Dudgeon, Elphick, Ferguson, Fingzies, Fleming, Freeman, Gentle, Greaves, Greig, Grey, junior, E. Grey, Hack, Hammond, Hunting, Johnston, Lawson, Lewis, MacCallum, McIntosh, Moir, Morgan, Prentice, Philp, Robertson, Alex. Robinson, Archibald Robinson, Rutherford, Scrymgeour, Simcocks, Spreull, Storie, J. B. Taylor, P. Taylor, T. Taylor, W. A. Taylor, Whittle, Woods, Wyper, and the Secretary.

The Secretary (Mr. Arthur W. Hill) read the notice calling the meeting, and also the minutes of the previous meeting, which were approved.

Report of the Council.

The Secretary read the annual report of the Council as follows:—

The annual general meeting of the Royal College of Veterinary Surgeons was held on May 5th, 1879, in accordance with the provisions of the Charter, when the following gentlemen were elected members of Council in the place of those who retired by rotation, viz.:—John Wortley, Axe, Wm. Robertson, Thos. Wm. Gowing, Jas. Beart Simonds, Wm. Whittle, and J. Wilkinson Anderton.

The Council have to report that at their first meeting, held on May 27th, Professor Williams, of Edinburgh, was elected President, and the following gentlemen were elected Vice-Presidents:—Professors McCall and Walley, Messrs. H. J. Cartwright, G. Williams, Jas. Moon, and E. C. Dray. Treasurer, Mr. E. C. Dray, and Secretary, Mr. W. H. Coates.

The Council have the satisfaction to announce that on the obtainment of the Supplemental Charter granted by Her Majesty's Government in August last (a copy of which was submitted at the last annual meeting, and circulars issued to those gentlemen holding only the Highland and Agricultural Society's certificate), 124 have availed themselves of the opportunity offered, and have received the diploma of the Royal College of Veterinary Surgeons.

It has been suggested that steps should now be immediately taken by the Royal College of Veterinary Surgeons to obtain an Act of Parliament for the protection of the title of Veterinary Surgeon, or other titles conferred by them or empowered by Royal Charter.

In order to give further effect to the Charter thus obtained, the Council have found it necessary to make certain alterations and amendments in the bye-laws.

The following are the new and amended bye-laws:—

7. At a meeting prior to the annual meeting, the Council shall choose from among the members of the profession not less than six persons to act as scrutineers in the matters of the election of members of Council.

New bye-law to follow "No. 32"—

"That in case any student, after having attended the prescribed course, is prevented by any cause—the fault not being his own—from presenting himself for the first or second Examination, he shall, after having passed that Examination, be allowed to present himself for the one immediately following, by studying one term less than he would by the "Bye-laws 31 and 32," provided the full number of terms shall have been complied with."

"37. Bye-law annulled."

The Council have to announce that the two years' system of examination was brought to a close in January last, it having been extended to that period in order to admit those who, from various causes, had been unable to pass their examination to the satisfaction of the Court of Examiners.

The three years' system is now in full force, and has hitherto proved successful. The Examiners find that there is a greater amount of proficiency in the class of students who now present themselves for examination, and less re-examination of rejected candidates.

With reference to the changes in the Court of Examiners during the past year, the Council regret to announce the resignation of Mr. Robert Lewis Hunt, F.R.C.V.S., who, in consequence of failing health, was reluctantly compelled to relinquish his duties at the Cattle Pathology table

The vacancy in the Examination Board has been filled up by Mr. Jno. Roalfe Cox, who has been appointed to the "Horse Pathology table."

The Council have to report that since the last annual meeting eighty students from the different veterinary schools have received the diploma of the Royal College of Veterinary Surgeons.

The following students obtained Honourable Mention, viz. :—Messrs, Ernest Ed. Batt, W. J. Malvern, F. Gowland Rugg, Nicholson Almond, H. A. Rumboll, J. J. Crowhurst, G. Johnson, G. G. Mayor, Walter J. Palmer, E. Slipper, T. W. Cave, A. W. Briggs, Donald Gregory, H. T. W. S. Mann, G. Deveson, Theodore C. Toop, Sidney Villar, W. Caudwell, C. Taylor, and T. W. Lepper (Royal Veterinary College), with Great Credit.

The Council have had under their consideration a scheme for one uniform Matriculation Examination to be adopted by the respective schools. The scheme was generally approved, butas one dissented from the arrangement, the subject was deferred for further consideration.

The council elected the following gentlemen as Examiners for the Fellowship Degree, viz. :—Messrs. Fleming, Collins, Duguid, and the Dean of the College of Preceptors.

A special examination for this degree was held February 27th, 1880, when the following were admitted Fellows :—

Mr. Wm. Sheppard Wallis, Halstead, Essex.
" M. Wiggins, Market Harborough.
" Wm. Albert Russell, Army Veterinary Department, Dublin.
" Thos. Simpson, Seel Street, Liverpool.
" Isaac Vaughan (Prof.), New Veterinary College, Edinburgh.

PRIZES.

The Fitzwygram Prizes.—In order to increase the number of candidates, and to offer further inducement for competition, the donor gave notice that the competition for these prizes would not hereafter be limited to those who had passed with "Great Credit," but would be extended to members of the Royal College of Veterinary Surgeons who held their diploma for not more than two years.

Six candidates entered their names for the competition of these prizes in April, 1879. The written examination took place in London, and the *viva*

voce and practical examination in Lincolnshire. The only gentlemen who obtained the required number of marks were—

Mr. Edward Simpson Shave, Royal Veterinary College, First Prize £50
„ Thomas Herbert Lewis, New Veterinary College, Edinburgh, Second Prize £30
„ Wm. Frank Smith, Royal Veterinary College, Third Prize £20

The Royal Agricultural Society again offered their prizes for competition, when the following was the award of that examination :—

Mr. Wm. Alston Edgar, Dartford, Kent, £20 and Gold Medal
„ Wm. Frank Smith, Bromley, Kent, £10 and Silver „
„ Nicholson Almond, Clacton, Colchester ... ... £5 and Bronze „

The following letter was received from the Secretary of the Royal Agricultural Society :—

"Royal Agricultural Society of England,
"12, Hanover Square, London, W.,
"*Dec. 16th*, 1879.

"Dear Sir,—I am instructed by the Veterinary Committee to ask you to be so good as to ascertain from the Council of the Royal College of Veterinary Surgeons whether they could undertake to nominate Examiners for the Society's veterinary prizes and medals, so that identical examinations might be held simultaneously in Edinburgh, London, and, if necessary, in Dublin. The object in view is to promote a co-operation between the several agricultural societies, so that the prizes might be equally open to graduates of the Royal College of Veterinary Surgeons, whether they are resident in England, Scotland, or Ireland, and whether they have been educated at the Royal Veterinary College or at any other veterinary school.

"Your early attention to this matter will much oblige,
"Yours very faithfully,
"W. H. Coates, Esq. "H. M. JENKINS, *Secretary.*"

Communications have been made with the Highland and Agricultural Society in the hope that Scotland would unite in making the prizes general among the students, and the Council purpose to appoint examiners as soon as the agreement has been entered into between the two societies.

Unfortunately, however, the Highland and Agricultural Society, after due consideration, does not feel itself in a position at present to come to such an arrangement, hence the scheme must remain for a time in abeyance.

The House Committee.

During the past year the House Committee had their attention directed to a freehold property in Fitzroy Square, which was to be sold, and was considered might be made available for a college.

The Committee spared no pains or expense in interesting themselves upon the subject. A surveyor was appointed to value and inspect the property. It was considered, however, to be deficient in its appearance, and the rooms unsuited for the requirements of a college.

On further deliberation and after taking a legal opinion, the negociations fell through in consequence of certain doubts having been expressed with regard to the genuineness of the title.

The Committee, therefore, resolved to ascertain, by advertisements, whether suitable premises could not still be obtained. The replies received

were unsatisfactory, and failing to receive any assistance from Her Majesty's Government, the Council deemed it advisable that they should not leave their present building until some more suitable premises could be obtained.

In accordance with the terms of the lease, the house has been put under thorough repair, and a portion of the back premises pulled down and rebuilt, as it was considered to be dangerous.

The College Fund.—Some trifling subscriptions have been received during the past year, the only real increase being in the receipt of its dividends.

The following is the amount of stock and balance at the bankers :—

Amount of Stock standing in the names of the Trustees ...	£1,513	13	4
Balance at Bankers	104	11	10
Dividends	44	9	4
Total	£1,662	14	6

The following is the statement of the attendance of members at the Council and committee meetings :—

Vice-Presidents.

Henry Joseph Cartwright ...	6	James McCall	1
George Williams	4	E. Coleman Dray	6
James Moon	3	Thomas Walley	3

Council.

Jn. Wortley Axe	4	Peter Taylor	6
Wm. Robertson	2	John Cuthbert	3
T. W. Gowing	3	Rd. Sam. Reynolds	6
Jas. B. Simonds	2	Francis Blakeway	5
Wm. Whittle	6	Benj. Cartledge	4
Jn. Wilkinson Anderton ...	6	Matthew J. Harpley	7
Major-Gen. Sir F. Fitzwygram	4	Geo. Fleming	5
Jas. Collins	6	Wm. Pritchard	7
Wm. Hy. Coates	8	Wm. Williams	5
Geo. Morgan	7	Hartley Thos. Batt	8
Jas. Freeman	5	Thos. Greaves	7
Alf. B. Proctor	2	Geo. Thos. Brown	1

Committees—Finance, House, and Selection.

Hartley T. Batt	6	M. J. Harpley	4
Henry Jos. Cartwright ...	1	Jas. Moon	3
Jas. Collins	3	G. Morgan	2
E. C. Dray	5	W. Pritchard	3
Geo. Fleming	2	J. B. Simonds	2
Jas. Freeman	1	P. Taylor	4
Thomas Greaves	6	Geo. Williams	3

The Registrar has to report the death of thirty-five members of the profession since the last annual meeting. Among them may be mentioned the death of Professor Varnell, F.R.C.V.S., late Professor of the Royal Veterinary College. He was elected President of the Royal College of Veterinary Surgeons in 1865, and was a Member of Council for upwards of sixteen years. Also the death of Mr. John Cuthbert, of Leeds, a member of the Council, elected three years ago. He was also a Fellow.

A new Register will shortly be published containing the names of the new members of the profession, as well as those who have been recently admitted holding the Highland and Agricultural Society's Certificate, and the many alterations which have been made since its last issue. Copies may be had on application to the Secretary, price 1s. 6d., or 1s. 8d. post free.

Presentations.

Presentations have been made to the library of the College by Professors Simonds, Williams, Walley, and Vaughan, and by Mr. E. B. Nicholson, of the London Institution; also some interesting classified specimen grasses to the museum by General Sir F. Fitzwygram. The skeleton of a pure Arabian horse, and morbid specimens from India were presented by Mr. G. Fleming. Mr. Harpley also forwarded a photograph of the Veterinary Congress held in Hamburgh, containing a portrait of the late Wm. Field.

During the past year, in consequence of failing health, the Secretary has been reluctantly compelled to tender his resignation to the Council of the Royal College of Veterinary Surgeons, after holding office for a period of eighteen years.

The vacancy has been filled up by the election of Mr. Arthur Wm. Hill.

The financial statement is annexed. The balance in hand, after defraying the expenses of the year, amounts to £553 2s. 5d.

E. C. DRAY, TREASURER, *in Account with the Council of the Royal College of Veterinary Surgeons, from* APRIL 1*st*, 1879, *to* MARCH 31*st*, 1880.

Dr.

	£	s.	d.
To Balance at Bankers, April, 1880	330	0	5
Examination Fees to March 31st, 1880	1349	5	0
Highland and Agricultural Society's Certificate Fees	212	3	6
Fellowship Fees	78	15	0
Dividends	27	19	8
Copies of Register ...	3	7	6
Registrar's Fees	0	3	0
Property Tax	2	1	8
Gas consumed by C.V.M. Soc.	1	17	6
Interest from Scottish Bank	0	2	9
	£2005	16	0

Cr.

	£	s.	d.
Examiners' Fees and Expenses	654	7	6
Examiners' Fees for Fellowship Degree	15	15	0
Rent	100	0	0
Rates and Taxes	38	1	8
Salary to Secretary... ...	150	0	0
Insurances	1	18	9
Printing	17	3	6
Advertisements	18	3	0
Stationery, Postage Stamps, and Bookbinding ...	28	18	0
Law and Parliamentary Expenses for Supplemental Charter	161	1	11
Reporters	11	11	0
Diplomas, Printing and Embossing	14	19	9
House Surveyor	3	3	0
Drugs for Cabinet and Museum	2	1	0
Coals, Gas, and Wood ...	12	1	1
House Repairs, Painting, and Rebuilding Back Premises	153	12	6
Furniture, Upholsterer, and Gasfitter	11	8	1
Petty House and Sundry Expenses	30	3	7
Wages	20	0	0
Messenger	7	15	0
Banker's Commission ...	0	9	3
Balance at Bankers, April, 1880	553	2	5
	£2005	16	0

Amount of Stock standing in the names of the Trustees, £952 13s. 8d. Three per cent. Consols.

We, the undersigned, have examined the above accounts, and have found them correct.

GEORGE A. BANHAM, TOM G. BATT, } *Auditors.*

April 14th, 1880.

On the motion of Mr. P. TAYLOR, seconded by Mr. GREAVES, it was agreed that the report be received.

It was also agreed, on the motion of Mr. MORGAN, seconded by Mr. CARTWRIGHT, to adopt the report.

At the request of Mr. WHITTLE, the number of meetings of the Council and Committee which he had attended was corrected in the report, the number being six instead of five. He expressed his opinion that a proper register should be kept, so that there might be no mistake.

Mr. MORGAN explained that the error had been made inadvertently, but said that if such a record was to be kept it ought to be correct. He thought that the number of summonses to attend ought to be given as well as the number of meetings.

Mr. TAYLOR said he thought it was of importance that there should be an accurate register kept, because it was seen from that how the various members fulfilled their duty.

Professor WALLEY said that there were one or two things in the report to which he wished to refer, and one of these had reference to the time when the voting papers were sent out. He found that, in some instances, the voting papers did not arrive at their destination in time for the members to vote. For instance, he had received from Aberdeenshire a letter dated the 24th of April, in which it was said that the voting paper was received only the previous day at three o'clock. Now they were all aware that in country districts a letter very frequently could not be answered by return of post; and it so happened that, in this instance, a letter received at three o'clock could not be answered the same evening; in fact, it could not be answered till the Monday. His own voting paper arrived in Edinburgh on the 22nd, which gave him ample time to return it by the 25th. He did not quite understand whether the bye-law on the subject meant that the voting papers were to be at their destination three days from the date, or despatched from London three days within the date. If the latter was the meaning of it, then his voting paper did not reach him in time. He thought that, so far as it could be done, ample time should be given to outlying members to send their voting papers back in time, especially in the case of the members in Aberdeenshire. There was another matter to which he would refer, namely, as to those who had passed the examination last year. On page 3 of the report there were a number of names given of students having obtained honourable mention. Now, so far as he observed, there was not the name of a single student from Scotland who had obtained honourable mention. He did not know the reason of that, but it was a matter that should be inquired into. Those that were given were all from the London College. He wished to make another remark, and that was in connection with the statement in the report, "that steps should now be immediately taken by the Royal College of Veterinary Surgeons to obtain an Act of Parliament for the protection of the title of Veterinary Surgeon." At the last Council meeting he made the remark that he thought this matter should be brought prominently before the members of the profession, and he did not think that he was out of place in directing particular attention to that matter, so that they might discuss it amongst themselves, and when the time came they might help them in the matter.

The PRESIDENT asked if there were any further observations to be made on the report.

Mr. HUNTING, London, said he wished simply to remark that this their first meeting in the Scottish capital marked a new era in the life of the profession, and the successful result of a long struggle to improve the position of the profession (applause). He thought that they might congratulate themselves on having arrived at the stage of having obtained such a good position that they could meet in Scotland without opposition from another examining body. At the same time a healthy rivalry was not a thing to be objected to, and he had just risen for the purpose of stating that there was a chance of making a mistake in the other direction, and getting into a dead level of uniformity. Although one examining body was a good thing, yet it was not a good thing that they should have merely one governing body. He should be very sorry to see the schools ruled entirely by the profession, and that was what he was afraid they were approaching to. He thought that the schools and the management of the schools could not be too much separated from the profession so long as the College had the power of granting diplomas. Of course there was no reason why the schools should not combine voluntarily, and select parties to examine ; but it would be a mistake for the schools to hand it over entirely to the profession. It was the thin end of the wedge, and they might possibly be interfering with the schools afterwards in other matters. He would say, let the schools submit their students to whatever matriculation examination they might choose, and if they did not get proper men to do so, they would soon be shown in their true colours, and free trade would very soon right itself in the matter. With regard to the Museum of the College, he thought that any person who had been in it would be of opinion that it was simply and solely a disgrace to the profession. There were many really valuable specimens hidden away in a manner that was not creditable to them. There was hardly a provincial town that did not have specimens worthy of the Hunterian Museum, and he believed that the veterinary surgeons throughout the country would be willing to send up specimens to the Museum of the College provided there was a decent place to put them in. He must say that he felt almost sorry to read that somebody had presented the skeleton of a pure Arab horse, as he did not know where it was to be placed. He concluded by saying that he thought they might congratulate themselves on everything having gone right lately and also on their present meeting in Edinburgh (applause).

In reply to Professor MCFAYDEAN, Edinburgh,

Major-General Sir F. FITZWYGRAM explained that there was an error in the report with regard to the regulations as to the Fitzwygram Prizes, but that the papers sent out in his name were correctly worded, so that he did not think any practical injustice had been done to any one.

Mr. DOLLAR, London, said that several members had received no voting papers. He believed there had been some difficulty in issuing the voting papers this year—first, on account of the members not notifying to the Registrar the alteration in their addresses, the greater number of fresh names appearing on the Register for the first time. He did not stand up to find fault with what had been done ; still he thought that making a note of the delay that had occurred this year would have the effect of the papers being sent out better next year. He wished to take the opportunity of moving a resolution, and he would do so in connection with the Annual Report. The Report stated that "steps should now be immediately taken by the Royal College of Veterinary Surgeons to obtain an Act of Parliament for the protection of the title of Veterinary Surgeon." He merely made that paragraph the stepping-stone to bring forward what he wanted. The resolution he was to propose, if it was acted upon by the Council, would not only have

a great influence on the profession itself, but also in connection with the view that the public would take of them as a profession. If they went to Parliament for a Penal Act, there were some members who would ask, "Who wants a Penal Act? Are they more respectable than the individuals whom they are asking the Act against?" When he read Clause No. 12 of the Supplementary Chapter of the Regulations in connection with the Charter, he was surprised at the unlimited power which the Council possessed over every one of its members. But in reading further on in the Charter there was no line laid down in any shape or way. They were, as it were, a body of men placed body and soul in the hands of the Council (a laugh). He did not object to that; he was satisfied that they should hold that unlimited power, but he was anxious to know, as an individual member of the profession, in what way they were ready to exercise that unlimited power. He had no doubt that if it was exercised it would be exercised for the benefit of the profession, but the clauses in connection with the matter were in such a crude state that no one knew how the Council might act for the benefit of the profession. In making these remarks he referred to the getting of a Penal Act for the profession. Now, the very first thing that would be said in the House of Commons, if they went as a body, would be—How do they regulate the conduct of their members? There was nothing printed to show what these regulations were; and although they could point to the clause showing that the Council had unlimited power to expel any member from the profession for a sufficient cause, there was no provision stating how the Council should act in this matter. What he wished to propose in the shape of a resolution was the following:—"That the profession, represented by the members now present at their annual meeting, consider that the time has arrived when the Council should embody in a series of resolutions what derelictions of conduct on the part of any of their members will subject them to the cognisance of the Council, with a view to putting Clause 12 in operation against them." In his opinion, if that were done, it would not only be a most beneficial thing for every member of the profession as a profession, but it would have a great tendency to raise every member of the profession if it was known that the Council in connection with it had such unlimited powers, and that they would exercise them in certain circumstances. He would be glad if any gentleman would be good enough to second the resolution, and make any remarks regarding it, and he would also be glad to answer any questions in connection with it.

Mr. LAWSON, Manchester, said he had great pleasure in seconding Mr. Dollar's proposition, and he entirely concurred in all that he had said. There was another matter that he wished to bring before the Council, and he was enabled the better to do so as he had experienced that morning the labour in connection with it, namely, as to the voting papers. He would suggest to the Council respectfully that they should see that next year the voting papers were sent out in a manner similar to the voting papers in a Parliamentary election. The names were in larger print, and those who voted put a cross against them, so that the scrutineers had little or no difficulty, while the voters would also have less difficulty in marking those gentlemen for whom they voted. There was considerable difficulty experienced at present, and there were a great many bad voting papers. He might say that he had had applications from a number of people asking how they were to vote. He had no doubt that it would be for the general welfare of the profession if this matter were taken into consideration.

Mr. MACKINTOSH asked if Mr. Lawson proposed that in future they should vote by ballot?

Mr. LAWSON said that the voting was by ballot now; but he wished the system to be entirely altered and reorganised. At present it was very easy

for a man to put a cross at the name after the one he intended to put it, and often they could not tell for whom the vote was given.

Mr. TAYLOR.—You would still have each member to sign his paper with his name?

Mr. LAWSON.—Decidedly.

Mr. TAYLOR.—And that the type should be larger?

Mr. LAWSON.—Yes; and that the way they voted for a Parliamentary candidate should be followed in the voting paper. It was plainer and more legible than the present system.

Mr. GREAVES, Manchester, said he saw the force of Mr. Lawson's remarks, but no system that could be adopted was perfect. The voting papers sent out in the election of Members of Parliament were open to the same objection as had been urged (cries of "No, no"). There were many cases where the cross was put between two names, and you could not tell which party the cross was intended for. He thought he must be a very stupid man who could not understand the directions given on the voting paper: but so it was, and there would continue to be mistakes. With reference to one of the subjects brought before them, the sending out of the voting papers, he had to complain that they had not been sent out in that due form that they ought to have been. He had a friend who had resided at the same place for forty years and he did not get his voting paper till the 27th, while it ought to have been returned on the 25th. Other members did not get theirs till the 27th. He hoped the same thing would not occur at the next Annual Meeting. With reference to Mr. Dollar's resolution, the question was discussed at the Council as to what should be the nature of the offence of the person who should be excluded from the profession, and he might tell them that it occupied a good deal of time. The various points were fairly discussed, and it was thought best to leave it as it now stood in the rules. They might depend upon it that it must be a heinous charge against a veterinary surgeon that would exclude him from the profession. The Council had guarded against it, if it were to be carried out unfairly. They must have two-thirds of the members present before any action was taken, and then three-fourths of those present must be in favour of any action being taken before it could be done; so that it must come before a full Board before action could be taken, and the Council was not a body that would exclude a man if there was not sufficient reason for doing so. Perhaps there might be two or three cases in a man's lifetime, where a person had proved himself to be a disgrace to his profession. It was right that they should have power to exclude men from the profession who were unworthy of it (applause). There was one other subject to which he would refer, and which had been alluded to by Professor Walley—namely, the Matriculation Examination. He did not take the same view of the matter that the professor did. He thought it was right that the Council should have the power to examine or give the subjects for examination before a student entered the College schools. He had seen some instances of an absurd anomaly, where a student had been examined at one college and rejected. His education had been very limited, and he passed to some other College, where he was admitted. Now, if the Council had the power of appointing the examiners, such an incongruity as that could not occur. They were getting such a position that they ought to improve themselves, if possible, and let them get better educated men into the profession. The time was when any man, let his education be ever so limited, was allowed to enter the colleges if he paid his fee. He remembered on one occasion, when he had an opportunity of coming to Edinburgh on a deputation from the Royal College of Veterinary Surgeons, that he found the Lord Provost and members of the Corporation were in favour of a higher standard of education than the Colleges were then asking for. He thought that

the time had come for the student having a good position in regard to education before entering the College schools. He was in favour of the various schools placing the power in the hands of the Council of appointing the examination of the student before he entered the College. He hoped that an amicable arrangement would be come to by the principals of each college to give the power into the hands of the Council.

Professor McCALL, Glasgow, said that as he was the principal of a college that objected to the system of uniformity being carried out, he thought it was right that he should make a statement. He was the first to introduce an educational test before allowing a student to enter the College, and he was in a position to say that no student had been allowed to enter the College who had been refused by some other College, so that the statement that had been made to that effect did not apply to him. He respected the Council, and he believed that the very best talent that had been found in the profession had been found in it. Hitherto they had conducted the duties devolving on them with great efficiency, but he was not prepared to hand over the power he possessed, so far as an educational test was concerned, to the Council. He believed that if the Council adopted the same measures with regard to the Scottish schools as to the schools in London, they would empty the benches considerably. He was perfectly willing to come to an understanding with all the three colleges, whereby the principals of all the colleges should have an equal representation as to the changes that took place in the Council. He knew that his feelings in regard to the matter were sympathised in by Principal Williams and Principal Walley. Before he wrote the letter on the subject he consulted those gentlemen, and they also came to the conclusion that the principals of the colleges should have a seat at the Board. He was perfectly willing to come to an understanding with the College to have a uniform test applied to all students entering the College, but he would not hand over to the Royal College the power he possessed (applause).

Mr. MACINTOSH.—Is this before the meeting as a motion, or as an expression of opinion?

The PRESIDENT.—It is simply an expression of opinion.

Principal WALLEY said that Mr. Greaves referred to the fact that a student was received at one college after being refused admission to another. Now, such a fact had never come under his knowledge, and as far as the school with which he was connected was concerned, he was certain that no such admission had ever been made. He rather thought that Mr. Greaves had mistaken the matter a little. This was what had taken place. A student had been refused admission to the London School, simply because he could not pass the examination, and at another college he had passed an examination, after which he went back and entered that School. The rule was that the student should not enter the school till he had passed in Latin or French, but it went on to say that a Matriculation Certificate from another school would be accepted. They would not allow students to pass without Latin or French, but they might come to Edinburgh, pass the Matriculation Examination there, and then enter the London School. However, he might state that they put a stop some time ago to anything of the kind being done in the future, so far as Edinburgh was concerned.

Mr. CAMERON, Berwick-on-Tweed, said he had much pleasure in being present at the first meeting of the Royal College in Edinburgh. He was not living in Scotland now, but he had still the same feelings as Scotchmen. He highly approved of the change which had been made which enabled the meeting to be held in Edinburgh; but another change would require to be made before the full advantage could be reaped. It had not been taken into account that there were no trains running in the north of Scotland on Sab-

bath. It was a matter of time and money to those in the north who attended the meeting, and he thought that an arrangement should be made so that meetings such as the present, and even in London, should not take place on a Monday or a Saturday. The present system also involved a good deal of Sabbath travelling. Although he had no special objection to Sabbath travelling which he did professionally, yet it ought to be done as little as possible. They knew the source of England's greatness, and they knew that it was said, "They that honour Me, I will honour." If there was no legal objection to it the meeting ought certainly to be held on any day of the week except Saturday or Monday. He was sure that Scotchmen were highly gratified to see their English brethren in Edinburgh. With regard to the question of voting, he considered it would be a very great improvement if Mr. Lawson's proposal was carried out.

General Sir F. FITZWYGRAM said he wished to make a few remarks. Professor McCall, in the course of his speech, said that the Royal College of Veterinary Surgeons were regulating or had regulated the Matriculation Examinations. That was not the case. The Royal Veterinary College had regulated its own examinations, and the Royal College of Veterinary Surgeons had had nothing to do with it. Professor Walley had mentioned that while the Royal College of London prescribed a high standard, they allowed the admission of students surreptitiously by coming down to Scotland. Now, there was no doubt that in the original scheme in London they did accept certain examinations for certain places, but it was found that there was an abuse, and the Governors stopped it, and no one was now allowed to enter the College unless he passed the full examination. The proposal of the College was not to establish a uniform examination for the four schools, but to define a certain standard below which no one should be allowed to enter into the veterinary schools at all. What they endeavoured to do was to draw out a scheme giving the lowest examination which a young gentleman must pass before he could be fairly supposed to derive any advantage from entering the schools. He thought that if the principals of the four schools would agree together, the Royal College of Veterinary Surgeons would gladly endorse any recommendations they might make. There would then be no chance of the examination being altered without the accord of the schools. He thought that some examination should be adopted, below which no young gentleman should be allowed to enter.

Principal MCCALL said that the alterations had taken place principally with reference to the veterinary element of the London College. As they were aware, Sir F. Fitzwygram, Mr. J. Collins, and Mr. Harpley, were Governors of that Institution. Now, suppose that the other colleges took a part in the Matriculation Examination of the students, these three gentlemen would still have to do with the Matriculation Examination for members of Council; so that, while the other three colleges in Scotland would have no voice at all, these three gentlemen, being Governors of the Royal Veterinary College, would have a voice.

Mr. FLEMING said that this was a very important question, and he thought that the time had arrived when their educational status should be improved. It must be confessed that the standard of education at the present time was very far from what it should be, and the anomalies that existed pointed to the fact that if it was left to the schools themselves there would be no uniformity; because it was impossible, while they had competing schools, to have that uniformity of standard which was so necessary. The medical corporations had a standard of education laid down, which applicants for admission to the schools had to pass before they were admitted. He thought that, as the Royal College of Veterinary Surgeons was responsible for the status of the student, inasmuch as it gave him its diploma, it was

responsible not only for the professional education of the student, but also for his general education. Although some of those present might dissent from what he said in regard to that point, yet he was sure they would agree with him that the general education of the veterinary student greatly required raising. He had had conversations with some of the teachers, and they expressed themselves as labouring under great difficulties, from the simple fact that the men they had to teach were unable to understand the language in which they were taught. It lay with the Council to determine the amount of education that was required for its members; and now that the profession was entirely responsible for its own position, it should see that its graduates were men who had obtained such a fair share of education as would enable them to study their science, as well as enable them to pursue it with advantage, both to the public and to themselves. In whatever way this might be accomplished, the profession would not be satisfied till this reasonable amount of education was exacted. He thought that the Matriculation Examination should be in the hands of the Royal College of Veterinary Surgeons, because it was the only way they could get that uniformity of education the profession and the public required. As to the voting papers, he thought that the suggestion of Mr. Lawson was a good one. He thought that the cross applied to the name would answer very well, and that it was a mistake that the voter should sign his name. He knew that a certain number of people would not vote because the vote was public, and because the scrutineers could tell how the voter had given his vote. He thought that where there were a number of names to be voted for it was very invidious, and he had abstained from voting himself. He considered it would be a better plan if the names of the gentlemen to be voted for were printed in the manner indicated by Mr. Lawson.

Mr. SPREULL said that they did not require any signature at all.

Principal WALLEY said that, with regard to Matriculation, he believed that the schools were willing to agree amongst themselves as to a certain uniform standard. He thought that that was the best way of solving the difficulty, and that it was merely a matter of time. Although he had no objection to the Council exercising some supervision over them, still he thought they need not put the power entirely out of their hands. As to the system of voting, he did not see that if they were to vote by papers they should affix their signature. Personally he did not care about the matter, and he was ready to put his name all the same, but he thought that the voting should be carried on in the way it had been.

Mr. W. A. TAYLOR said that if he was in order, as the discussion had assumed a somewhat miscellaneous character, he should like to offer a few remarks with regard to the voting papers. Having been unexpectedly called upon to act as one of the scrutineers, he found that much time was unnecessarily expended by the manner in which members of the College had to vote for the respective candidates. It was, he thought, an unnecessary and unwarrantable tax on the time of the scrutineers to have to count and go through in a minute manner the names as at present arranged, in order to arrive at a correct conclusion. He cordially supported the suggestion of Mr. Lawson, more particularly that the names of the candidates be printed in larger type. There had been, he believed, fourteen votes lost that morning, a majority of them from absence of signature, and some others from mystification of the names and residences of the candidates with the list of the present members of Council. Some gentlemen, unable to understand the Queen's English, had erased the names of the present members of Council instead of voting for the candidates. He thought that was another suggestion that might be taken into consideration in future by those who draw up the voting paper. He did not know that it was absolutely necessary that a list

of the present members of Council should appear on it. If so, he thought that it would be highly judicious that a plainer and more distinct manner of discriminating between the two were applied in drawing out the voting papers. He thought also that some better arrangement might be made with regard to the appointment and the attendance of the scrutineers. If gentlemen accepted an office, he thought they were called upon and in duty bound to be there to do their duty. It was exceedingly unpleasant for a member of the profession, after having travelled a distance of between 200 and 300 miles, to be suddenly called upon to act as a scrutineer. He might say that it had been so on this occasion in several instances.

Mr. Dollar's motion was then put to the meeting, and unanimously adopted.

The PRESIDENT then said that he would endeavour to explain some matters which had been under discussion that afternoon. In the first place, as to the non-delivery of voting papers till late in the week, he must confess that he was to some extent to blame in the matter. The annual report was detained in Edinburgh for a day in consequence of his absence from home. It could not be printed till he had revised it after being sent to him by the secretary; and, being from home, the report did not get to London for another day. That would to some extent account for the delay. He trusted, however, to have an opportunity of moving in the Council, or that some one else would do it for him, that more days would be allowed for sending out the voting-papers. He hoped that by next year there would be no longer any cause for complaint. The Secretary told him that the reason why a great many gentlemen had not received voting-papers had been on account of their having changed their residences since the last publication of the Registrar. The voting-papers were sent to the old addresses; and, the new addresses not having been given, the papers were returned. He hoped that every gentleman who had changed his address would send the new one to the Registrar of the College, in order that he might get the voting-paper in due time. With regard to the matriculation question, he must confess that he was quite willing that the Council of the Royal College of Veterinary Surgeons should have at least the power of fixing a minimum examination. That was to say, that, after due consultation, and by arrangement with the principals of the colleges, power be granted to the Royal College of fixing, as it were, the lowest standard below which no one would be allowed to enter the College, and also of appointing examiners to conduct such examinations, leaving it open to each individual college to elevate its standard of education if it thought proper; but at all times, there being a distinct arrangement between the schools and the Royal College of Veterinary Surgeons, that the Royal College of Veterinary Surgeons should not be allowed to exercise their power in raising the standard of education except by the consent of the principals of the schools. If that was carried out it would meet the views of all, and put the matter on a satisfactory footing. He had always had a strong feeling that the power should be in the hands of the profession. He quite agreed with the observation by Mr. Fleming as to the College being not only responsible for the scientific training, but also the educational training of those who became members of the profession; and when the matter came forward again, he would certainly support the views he had expressed at the present time. He would not touch much on the question of students coming from London to Scotland, having been rejected at the college there, and afterwards returning with a certificate. It so happened that he knew the gentleman referred to. He was a good scholar, but did not know French or Latin, and was excluded. However, he was in a position to say the London Veterinary College would not now allow any man to enter with a certificate except it was equal to the standard required by the London Veterinary College; and therefore that little matter, which occured a year or two ago,

could not possibly occur again. He was sorry that at their first meeting in Edinburgh there should not have been a larger muster of Scotch veterinary surgeons. They had for a number of years agitated for what had happened that day. They had desired that the profession should meet in the City of Edinburgh, and after having obtained their desire, he was afraid that they did not appreciate them, or else the attendance would not have been so sparse on the present occasion. Considering that so many of their friends had come from Lancashire, Yorkshire, London, and other parts, he thought that the Scotch veterinary surgeons might have come in greater force. Their friends had come to do honour to veterinary science in Scotland on the present occasion, and he was sorry that many living in neighbouring parts were conspicuous by their absence. As to the point raised by Mr. Cameron, regarding the day of the Annual Meeting of the Royal College, he had to state that it was laid down in the Charter that it was to be held on the First Monday in May. He did not think that the objection as to Sunday travelling would have much weight with veterinary surgeons. He did not, indeed, see why it should, for they often had to travel professionally on that day, and it was just as important that they should travel to the meetings of the College as it was that they should attend a case of sickness on Sunday. He hoped, then, that if this obstacle had stood in anyone's way it would in future be forgotten, and that they would have larger attendances. As to the omission from the report of the names of the gentlemen who passed with credit last year, he might say that the names of the students who passed in April last would not be received in time to be in the report; but then they found that the names of the men who passed with very great credit last year were also omitted. That, he was inclined to think, was due to some omission on the part of the secretary in Scotland, Dr. Dunsmure. He trusted that such an omission would not take place again, as it was a matter of professional and general interest. He would be glad if the Council would support the view that there be a supplementary report published in the *Veterinarian* and VETERINARY JOURNAL, so that people might not run away with the idea that no students passed with credit on this side of the border (applause). As to the Museum, they all knew that the building was not such as they required—that they needed a larger and better building, but they were not so fortunate as to find such a building in London last year. The matter was, however, receiving due consideration, and a committee was appointed to consider the whole matter. There was a room on the second floor, at No. 10, Red Lion Square, that might be applied for the purpose, and he could say that the matter would receive due consideration at the hands of the committee that had been appointed. As to the alteration of the voting papers, he thought that the present voting paper was a very good one, that the directions were exceedingly plain, and that no man of ordinary intelligence should make a mistake in regard to it. But he should like to see the names of the candidates in much larger type, and much more space between the names. He could understand the difficulty of separating the names when they were so close together, and he trusted that next year the names would be printed in much larger type. For his own part, he detested secret voting, and if it came before the Council to discuss the matter, he should certainly go in for open voting. He did not think that any man should refuse to sign what he had voted. He had now to report the result of the election, and he might state that, notwithstanding the complaints about the non-receipt of voting papers, about 900 had been received this year by the scrutineers—a larger number than ever was returned to the scrutineers before, causing much extra work on the part of the secretary. Mr. G. Fleming headed the list with 625 votes; Professor

Brown obtained 609; Professor Pritchard, 593; Principal Williams, 495; Mr. T. Greaves, 458; and Mr. H. T. Batt, 398. Principal Walley was elected by 355 votes in room of the late Mr. Cuthbert. The following were the votes given for the other candidates:—Mr. Talbot, 309; Mr. Flanagan, 299; Mr. Wragg, 297; Mr. Robinson, 282; Mr. Cartwright, 261; Mr. Dray, 197; Mr. Owles, 142; Mr. Moon, 98. The President then intimated that the next Meeting of the Council would be held in London on the 25th of May, 1880.

On the motion of Mr. ROBERTSON, Kelso, a cordial vote of thanks was given to the President, and the proceedings were then brought to a close.

THE ANNUAL DINNER.

The Annual Dinner was held at the Waterloo Hotel, seventy gentlemen being present, among whom were Mr. Imlack, President of the Royal College of Surgeons, Professor Turner, Drs. Dunsmure, Dycer, Stevenson, Macadam, Majors Kaye and Boulton, Messrs. F. N. Menzies, Munn, etc. Among the toasts perhaps the most notable was that of Professor Turner, Edinburgh University, who, in giving the Royal College of Veterinary Surgeons, said he had been attached to the Royal College for some years in a certain official capacity, which had given him an opportunity of knowing a great deal of what the Royal College had been doing, and of satisfying himself that it had been doing excellent work in connection with the veterinary profession. The Royal College could not boast of that antiquity which some Royal Colleges in the toast list could boast of. It only dated back some forty years; yet they might regard it as a very lusty infant—a child which could assert itself, which possessed all the elements that conduced to vigorous manhood. He knew of few institutions associated with educational matters which had done so much good, from a professional point of view, as the Royal College of Veterinary Surgeons had done. Under its auspices, under the examinations conducted by it for a series of years, there could be no question that the tone and standard and spirit of the veterinary profession had amazingly improved (applause). And he was happy to say that the College was not disposed to stand still, but was desirous of furthering the prosperity of the profession over which it exercised so important a superintendence. During the years he had been engaged as one of the examining body, a most important improvement had been instituted, namely, the lengthening of the curriculum. Nothing, he thought, that the College had yet done had been more conducive of good than the addition of one year to the curriculum. He had had an opportunity of comparing the acquirements of the candidates before this extension, and he could assure the members of the College present that the change had been of a most beneficial character. The candidates were now prepared to answer questions, and to display an acquaintance with their various important departments of professional knowledge which, prior to the extension referred to, it would have been simply absurd on the part of an examiner to have expected. The young men now in course of preparation for examination in its successive stages were unquestionably more thoroughly prepared than was the case formerly. But if he might be allowed at the meeting of so many influential members of the College to make a statement with reference to veterinary education and examination, he should like to say that he thought the College ought to make an additional step forward, and that before long. The step should not be in the direction of extending the professional curriculum from three to four years—not at least now, for he did not think the profession ripe for that; and the addition of another year of study added to expense of study, consequently many who would be disposed to enter the profession might not have the funds to do so. The step he urged, and which he hoped would

be seriously considered, was the institution of an entrance examination. Nothing, he thought, would add so much to the standard of attainments in the veterinary profession as the institution of such an examination; and no one should be allowed to appear for professional examination until he had passed that entrance examination. As an examiner, he had constantly felt difficulty with candidates who came up absolutely ignorant of the Latin language, on which was based so many of the terms employed in veterinary medicine, and the sciences of which veterinary medicine was founded. He would have an entrance examination embracing not only Latin, but English, and the more ordinary arts of education. This, he maintained, would increase the whole standard of the profession.

Meeting of Council, held May 25th.

Present—Messrs. Anderton, Batt, Blakeway, Cartledge, Coates, Collins, Sir F. Fitzwygram; Messrs. Fleming, Freeman, Greaves, Harpley, Reynolds, Robertson, Taylor, and Whittle.

On the motion of Mr. Greaves, seconded by Mr. P. Taylor, General Sir F. Fitzwygram was voted to the chair.

The Secretary read the notice convening the meeting.

The minutes of the last Special Meeting were read and confirmed.

The Secretary stated that letters had been received from Professors Williams and Simonds, and Messrs. Morgan and Gowing, regretting their inability to attend the meeting. Prof. Williams, in his letter, expressed his best thanks to the Council for the honour they had conferred upon him in electing him President for the past year, and for the kind support and assistance afforded him in carrying through the business.

Mr. P. Taylor proposed Mr. George Fleming as President for the ensuing year. He did so on the ground that Mr. Fleming had been a member of Council for twelve years, and had performed his duties in a faithful, honest, and Englishman-like manner. His transcendant abilities would enable him to fulfil the office with credit to himself, and he would be an honour to the Council.

Mr. Greaves said he had great pleasure in seconding the proposition.

Mr. Fleming was unanimously elected.

Gen. Sir F. Fitzwygram said he wished not only to congratulate Mr. Fleming, but also to congratulate the Council on the selection they had made. Sir Frederick then vacated the chair in favour of Mr. Fleming.

The President thanked the members of the Council most heartily for the honour they had paid him in electing him as President of the Royal College of Veterinary Surgeons. He must confess that he accepted office with a large amount of diffidence. He was not sure whether the very high compliment they had paid him was altogether deserved. He himself was of opinion that the office of President should be held by the senior members of the profession. There were many worthy men whom he should have liked to see President in preference to himself; nevertheless he obeyed the call of the Council, and he trusted that in the coming year they should be able to transact the business of the College satisfactorily. He should rely upon their assistance. There was a great arrear of business, and a large amount of committee work especially. He trusted the members of the Council would give him their active support, and he assured them he would do all he could to further the interests of the Royal College.

The following gentlemen were nominated as Vice-Presidents:—Messrs. Dray, G. Williams, W. Woods, Moon, Dollar, F. Dunn, Cartwright, Prof. McCall, and Mr. Cox.

On the ballot being taken, the following was found to be the result :—

Mr. Dray	11	Votes.
„ Cartwright	11	„
„ Cox	9	„
„ Dunn	9	„
„ Woods	8	„
„ Dollar	8	„
„ Moon	7	„
„ G. Williams	6	„
Professor McCall	6	„

Messrs. Dray, Cartwright, Cox, Dunn, Woods, and Dollar, were therefore declared duly elected.

On the motion of Mr. TAYLOR, seconded by Mr. WHITTLE, Mr. Dray was unanimously re-elected Treasurer.

Mr. A. W. Hill was unanimously re-elected to the offices of Secretary and Registrar.

This concluded the business of the First Special Meeting. A Second Special Meeting was announced to be held, but

The PRESIDENT questioned whether it could be held legally, as the Vice-Presidents for the past year no longer existed, and those who had been just elected were not present. The Vice-Presidents were responsible for their share of the business of the Council, and if they had not received notice of the meeting they could not be held responsible.

Mr. GREAVES thought it had been hitherto held that the Council was not complete unless the Vice-Presidents were in attendance.

The meeting, therefore, was not held, and the business that would have been transacted was postponed till the next meeting.

Before the Council dispersed, on the representation of Mr. COATES, it was agreed that the Treasurer should be instructed to reimburse the Secretary for the expenses he had incurred in connection with the Annual Meeting at Edinburgh.

The Council then adjourned.

CENTRAL VETERINARY MEDICAL SOCIETY.

AT a meeting of the above Society, held at No. 10, Red Lion Square, on Thursday evening, February 5th, the President, Mr. H. J. Batt, in the chair, the Secretary introduced a specimen of a ruptured liver, taken from a seven-months'-old filly, which had been sent by Mr. M. Tailby, of Birmingham. There was a large quantity of blood in the abdomen. The filly was a quiet animal, and had belonged to a butcher, and was eating shortly before death ; it had been forwarded eleven days previously.

The CHAIRMAN thought the symptoms the result of a blow. He remembered a two-year-old horse falling very suddenly with a full stomach, and thus rupturing its liver ; had also been called in to see a colt that had, when galloping, slipped up on its side and ruptured its liver ; it lived three or four days after.

Mr. FURNIVALL had had a colt three years since just the same way ; it died the same day.

The CHAIRMAN then called upon Mr. Furnivall to give his essay on "Inoculation in Contagious Diseases as a Means of Prevention and Cure" —viz., Pleuro-pneumonia, Glanders, and Farcy, who said, on the subject of Cattle Plague, that on the 23rd of April, 1868, there was a large herd of black Welsh cattle passed through Kingston to be sold at the fair. When his men were going to work, between the hours of five and six a.m., they

heard a lot of shouting and the rattling of cows' horns in their place, and of course going to see what was amiss, found 350 cattle mixed with their own (they kept 200 fine milch cows, valued at £25 each). They lent assistance and soon separated them. The cattle were started back the next day, and reached Barnet fair. The following day intelligence came that these cattle were affected with the Plague. Professor Simonds, of the Privy Council, went down, and the herd were destroyed, and the poor Welshmen had to go to the Hammersmith magistrates in court to ask for money to take them back home. Fourteen days afterwards, he (Mr. Furnivall) found his cattle began to droop. He communicated at once with the inspector, Mr. Evershed, of Guildford, who gave notice to the Privy Council. Professor Simonds came down the following day, and the whole of his ninety-seven head had to be shot. The question comes, Was there a cure for this? He had a pedigree bull—bought it at Mr. Dean's sale, giving 250 guineas for it; it got a slight touch, but not caring to destroy him, consulted a Scotchman, his bailiff, who suggested a good idea—to take a straw rick, cut it through, make a loose box, with up and down shaft. This advice was acted upon and the bull inoculated. The treatment pursued was diniodide of copper, with sulphate of iron and cantharides. It was allowed the most generous diet obtainable. He kept it sixteen weeks; it gradually picked up in condition, and he had the animal still, showing, he thought, that by inoculation Cattle Plague was curable. Here there were all the symptoms—defluxion of the nose, stinking breath, the swollen tongue and gums, and the horrid effluvia of the breath. Knew of no analogous case recorded in the veterinary books, with the exception of one cured in the year 1842, which was recorded in Percivall's "Hippopathology," vol. iii., page 186, and also inserted in the *Veterinarian*, of 1842, by Mr. Ernes—"He was called to a case on the 6th of October. Found swellings of the hind legs, and enlargement of the parotid glands, with copious discharge from the nostrils," etc., etc.

Mr. MARTIN asked, What was the bull inoculated from?

Mr. FURNIVALL: From one of the diseased cows directly they were slaughtered. The question has been asked by our Continental brethren as to whether anything can be done for it, and he thought his was a *bonâ-fide* case. In *Pleuro-pneumonia* in cattle, he believed that by inoculation not only could it be cured, but prevented. This last year—1879—he personally inoculated 1,500 head of cattle—some affected with it, some not—and had not lost one per cent. For *Farcy* in horses, had tried that by inoculation. In seven cases inoculated, could truly say he had succeeded in curing them, afterwards selling them at Aldridge's. He gave four guineas each for them, and they realised £30 each. He proposed to spend some £500 to obtain diseased horses, so satisfied was he with inoculation, if Parliament would sanction it, and instanced the public recognition of Mr. Rutherford's services, for inoculating a couple of thousand cows in Edinburgh, by the testimonial received in 1879.

Mr. H. J. HANCOCK asked, with reference to the bull, if there was any suspicion the animal was affected with Cattle Plague at the time of inoculation, also what virus was selected. He did not think one isolated case was any proof inoculation would be a preventive or palliative to Cattle Plague. In his father's time many animals were treated, and several recovered and lived for some years, and no inoculation was practised. Were the horses suffering from Farcy at the time, also what did Mr. Furnivall inoculate them from?

Mr. FURNIVALL, in reply, was satisfied this bull had the Cattle Plague on him, but in a mild form. The virus was a portion of the lung he took from the diseased cows, and, selecting between the third and fourth coccygeal bone, made an incision in either side of the tail and put a piece in and bound it

round the tail of the bull. With reference to the animals suffering from Farcy, when bought they had got from twenty to thirty Farcy buds on them; he slaughtered one on purpose to inoculate the other; he took out a fair portion of the flesh with the bud in, and inserted it in the incision of the third or fourth bone of the tail of the horse he had.

Mr. G. BANHAM observed that he had heard and read of cases recovering, and believed a certain percentage did so recover. This bull was slightly affected, and perhaps would remain so, independently of the inoculation. He thought they could not rely upon one single instance and consider this treatment a cure for Cattle Plague. As regards Pleuro-pneumonia, he believed they were satisfied there was some benefit derivable from inoculation, but they knew it did not produce the same disease. In Farcy, Cattle Plague, and Glanders it produced the same disease, which was fatal. It appeared to him rather risky to inoculate horses with a poison for the purpose of preventing the ill effects of the same poison. Applied to Farcy, he could not understand the theory as to how the inoculation acted, nor could he conceive how a poison taken from one part and introduced into some other part could cure the disease. The report quoted from Percivall's "Hippopathology," he supposed was considered in those days the best book written, but still they could not rely upon everything that was down in black and white in the present day. He had seen very bad cases of Glanders, but had never seen or previously heard of Typhoid Glanders, but thought it more likely an anthracoid affection, and that Charbon had also been detailed as the same affection.

Mr. J. MOORE observed Purpura Hæmorrhagica had been mistaken for it, that Purpura looked like Glanders at one of its stages, and that if a man had not seen many cases he might make a mistake.

The SECRETARY asked Mr. Furnivall what class of horses the affected animals were; their condition and age at time of sale; also, if lost sight of since their sale, could he take measures to ascertain where they went; if the whole or half the lungs were affected, and whether he would deal with Glanders in the same manner, by inoculation and treatment. He thought if the preventive measure was to become amenable to treatment it would be beneficial to the public.

Mr. SHAW asked how many days elapsed before they showed symptoms of Farcy after inoculation?

In reply, he was informed he had not tried Glanders, because there was no Act of Parliament permitting him to do so.

Mr. SHAW had seen a great number of affected beasts, having to give orders for horses to be destroyed: among farriers it was called the "Black Fass."

Mr. HANCOCK observed there had been a case at Poplar, where the whole of the herd were destroyed, save one cow, which was allowed to remain there for eighteen months; throughout there was nothing the matter with her; she was vaccinated; he got an order this cow should remain. Went to a shed in London, and found three there. The man had fourteen affected with lung disease—two were, no doubt, largely affected with Cattle Plague; he thought the others were the same: the two were killed, the other, not affected, remained alive.

Mr. BANHAM said he could corroborate Mr. Hancock's statement. Professor Simonds had narrated a case of a cow which was inoculated, and stood with Plague-affected animals, and calved in the time.

Mr. J. MOORE, sen., saw one at the knacker's, that had to be killed; it was bad with the Plague: she was put among the dead carcases and was found going about recovering from her disease. He had seen scores getting better with Cattle Plague in a mild form, exhibiting all the symptoms, yet they got

perfectly well. He believed Professor Simonds had said it was something similar to Cattle Plague, and not "it"—that was one way of getting out of the difficulty.

The CHAIRMAN remarked, Mr. Furnivall had given a large field for discussion. As far as Cattle Plague was concerned, there was but a very small percentage that did recover. At the time of the first Cattle Plague in London, in the Edgware Road there were 150 head of cattle with the disease, and three or four that had not the disease were placed with them, and two had it and recovered. With reference to inoculation, he had known it to have been tried upon the Continent, in Germany especially, and in Russia. Some years ago Professor Simonds and Mr. Ernes were employed by Government to investigate Cattle Plague. They went over Hungary, Austria, and parts of Prussia, and came to the conclusion that the *only* plan to adopt was to stamp it out; this was also his opinion. He could not conceive that in the diseases of Glanders and Farcy, inoculation would be of any service, still it was a matter worth investigation. The isolated case Mr. Furnivall had given them of the young bull, was insufficient to rely upon. It did appear some good had been done with Pleuro-pneumonia, but he failed to see how, in regard to the other diseases, the introduction of the same disease as a cure could restore the animal to health.

Mr. MARTIN thought it a very important subject. He believed it would be difficult to induce the public to allow them to inoculate from cattle with Pleuro-pneumonia, to introduce it into their stock. Mr. Fleming had written a great deal in the "Journal" about the success in Scotland. He would like to know more of Mr. Furnivall's treatment in the cases of Pleuro-pneumonia—whether the virus was taken from the lungs, and what the symptoms exhibited were?

Mr. MOORE had been in very many cowsheds in London, especially in the parish of Marylebone, and found nearly all keepers had their cows inoculated; they could not make a living unless they did so. Most men who kept 100 cows did them all, and he had seen them in all stages of inoculation—the day of operation, and months afterwards: the loss was something like one per cent. The symptoms begin to exhibit themselves after they have been in from a week to twenty-one days; there is a swelling of the tail where the inoculation takes place, where it ought to be swollen—round the fundament, which closes the passage; this swelling has a strong resemblance to lung disease. There are about 700 or 800 dairymen in London, and with few exceptions, they all inoculate; some do not like to, it takes the milk off for a time. It was easy to understand how the disease broke out among a lot of cattle when two or three were affected—viz., by inhaling the breath of a diseased cow; and if several become affected all the others are saved, unless, perhaps, one or two die from the effects—it will run through them all, or nearly all. The prize beast taken to Argyllshire from England, in 1871, took the disease with him, and a number of animals had in consequence to be destroyed. One man threatened him if he went into his barn. The veterinary surgeon there was a brother-in-law of a farmer at Hendon. They inoculated 1,800 in Campbelltown, and since then there has not been a single case of Pleuro-pneumonia in it. If this can be done in a place where there is so much to hinder it, why cannot it be done in London? Mr. Rutherford, who is an elderly man, induced the cowkeepers of Edinburgh to adopt inoculation. Mr. Gamgee attempted to do it many years ago, and failed signally. Since last year there has been no case of Pleuro-pneumonia in the neighbourhood. He contended if there was an Act of Parliament, similar to the Vaccination Act, to have them inoculated, instead of knocking them on the head with a piece of cold steel, it would be a great saving to the cattle proprietor, who only got three-fourths the value of the cow. Two or

three years since he saw some twenty or thirty members of Parliament on the subject, and he was astonished to find scarcely any of them knew or had ever heard of inocutation for Pleuro-pneumonia. Sir Patrick O'Brien put it forward, and his answer was—"There was not sufficient evidence to induce the Government to bring in a Bill." He had nothing to say on inoculation for Farcy. Inoculation was just the same as vaccination. These cattle were affected before. If a child had Small-pox, vaccination will not stop it; so it is with Pleuro-pneumonia—if a cow has it, it will go on. There were five cattle at the same farm affected with Pleuro-pneumonia, as well as the rest; he treated them medicinally, and every one recovered. A week after another took it; he treated that and it got better: as far as his experience went, it was curable. He would not deny that other cows might take the disease any more than a child would take a disease after vaccination, but it was more effectual in cattle than in human beings. He treated them with phosphorus, bryonia, Liq. Ammonia Fort., and extreme cases with sulphate of zinc, according to the symptoms. He cured many cases of Cattle Plague medicinally.

Mr. SHAW questioned whether cowkeepers noticed it until the last minute, when the animal was nearly dead.

Mr. MOORE had been at a cowshed, and seen them take it, with a shivering fit.

Mr. SHAW said he agreed with Mr. Moore there, but how long was it before the cowkeeper gave notice of it? Until the pleura became affected they knew nothing of it, and it was only when the cow no longer gave milk that they said anything about it.

Mr. MOORE said there was no such thing as Pleuro-pneumonia, it was Broncho-pneumonia, it was not Pleurisy—he had seen hundreds of cases, and was certain he had cured several cases, such as mentioned; had been told by farmers over and over again that they cured every cow according to his instructions; a gentleman in Australia had sold five hundred of his pamphlets, this gentleman also told him the farmers cured every case by adopting his (Mr. Moore's) treatment. He could mention the names of some who had cured cases when taken in time to give opportunity. He went to Blenheim Palace, where there were some affected animals, some badly, exhibiting all the usual symptoms. He had a temporary shed put up for them, and placed them under treatment. Some time after he was asked if he recollected going to the castle? He said, "Yes." He found they had lost one lung but were nice fat beasts. He asked what saved these? They were dying before he went down and put them under treatment.

Mr. J. B. MARTIN thought they had the opportunity of treating contagious cases as matters were at present; it was left entirely in their hands, they need not say if it were Pleuro-pneumonia, or what it was, and if they could cure such cases it would raise their reputation in the eyes of the public. He would suggest the discussion be adjourned to the next meeting, when Mr. J. Moore could bring in a paper and give them the benefit of his treatment, as, if that gentleman had the power to cure these cases, it was a matter of the greatest importance to the profession at large, as at present they were ridiculed by the public for having to slaughter the animals instead of curing them. If they said the animal was affected with Pleuro-pneumonia, it had to be slaughtered; they might say it was a suspicious case, or something else; they had the advantage of being able to treat them in any way they chose; and if Mr. J. Moore was so successful in treating it, they might have his treatment in detail. He wished to know whether, in any of the cases cured, the lung had been hepatised afterwards? Twelve months ago there was a case of Pleuro-pneumonia which recovered, and was in the lodge now, he did not think it could spread the disease. He did not believe in any treatment in curing Pleuro-pneumonia when once established.

Mr. PRICE said, in tackling Cattle Plague by inoculation, he thought Mr. Furnivall should have come there prepared to give a better proof of the efficacy of inoculation for Cattle Plague; he did not regard the one isolated case of *supposed* recovery as at all conclusive. In Pleuro-pneumonia he thought a good deal might be done by inoculation, because nineteen cow-keepers in London, at the present time, had their cows inoculated with Pleuro-pneumonia virus. With regard to the inoculation of Farcy, he would ask Mr. Furnivall what kind of animals those were he inoculated from, and what in the world was the use of inoculating an animal with a disease that was in the system? whether he gave them any medicine, and how long the horses were under treatment? It was marvellous for any one to say he could cure Farcy, and give them no practical proof of it; and it was very questionable policy indeed for any member of the profession to come there and say he could cure Pleuro-pneumonia, Cattle Plague, or Glanders.

Mr. FURNIVALL said he did not include Glanders.

Mr. PRICE thought Farcy even more contagious than Glanders; he believed it did more harm in London at the present moment.

The SECRETARY said the question before them was as to the efficacy or not of inoculation for certain affections—Glanders, Farcy, and Pleuro-pneumonia. In Distemper in the dog, the inoculation with another virus (in other words, vaccination) was held to afford the animal an immunity from Distemper; numbers of people believed in it. For years he would not vaccinate, but at length, on account of the fee and multiplicity of applications, he thought he would give it the best test he could. On one occasion he went a long journey to vaccinate twenty-five dogs; he chose the nape of the neck. He wrote to the owner some time afterwards to know how they were (in the meantime he had vaccinated some more for him). The reply he received was to the effect that the whole of the twenty-five dogs he vaccinated were all well; of the last three, two had had the disease—one severely—and died. He asked himself the question—what caused that? Had he operated properly upon these three, or was the lymph different? He thought not.

A great deal of Farcy was about, but was unnoticed because inside the legs and groins—these horses were worked. At one time he knew exactly where to find cases, but now he never saw one; if he saw a possibility of recovery, he would be the first to do his best towards that end. In valuable horses, where the animals were more or less vigorous and good-conditioned, it was worth while to take some trouble, and there was some merit in success.

Mr. FURNIVALL, replying to a question asked by the Secretary, with reference to the horses, said two were hunters, the other three carriage horses; the cost of the three was £4 each, the other two £5 each; they were from eleven to thirteen weeks getting well; he afterwards sold them with a written warranty at Firmin's, and they realised from forty-five to fifty guineas each.

Mr. WOODGER, jun., was inspector in 1865-6 and went through many sheds and found several instances; some cows stood against the disease and never had it, others had it two or three years later. The second time we had Cattle Plague there were a lot of Dutch cattle had it, these were less severe than in 1865-6. He wished to know when Mr. Furnivall tried his experiments (in reply, during 1865), and remarked that he had given no reason *why* he thought inoculation was a preventive to disease.

With reference to inoculation for Pleuro-pneumonia, he had, when inspector, in 1865-6, inquired into it; he knew it had been practised for many years. Mr. Priestley had inoculated thousands. Men with only three or four cows rarely had it done, for fear of losing a cow, but large cow-owners did not mind that; he had never inoculated a cow.

After further discussion it was proposed the subject be adjourned, but on an amendment being made and put to the meeting, the subject was then closed, and the proceedings terminated.

LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

THE usual quarterly meeting of the above Association was held at the Blackfriars Hotel, Manchester, on the 13th day of April, 1880; Wm. Dacre, Esq., President, in the chair.

Mr. C. E. Challinor proposed, as member of this Association, Mr. T. Stone, of Walkden; seconded by Mr. Litt, of Bolton, and carried. Mr. Challinor also nominated Mr. A. W. Briggs, of Bury. Mr. A. Polding nominated Mr. James Polding, of Burnley.

An adjourned discussion then took place on the President's address, bearing principally upon the penal clause, exemption from serving on juries, and the desirability of students serving an apprenticeship. The discussion was very animated, and the following gentlemen took part in it—Messrs. P. Taylor, T. Greaves, T. Taylor, W. A. Taylor, Wm. Whittle, Wm. Woods, C. Elam, G. Morgan, R. Reynolds, and the President, all being of opinion that the carrying out of such measures would be to the advantage and advancement of the profession. The following resolution was then proposed by Mr. W. A. Taylor, seconded by Mr. T. Taylor, supported by Mr. T. Greaves, and passed unanimously—"That this society views with great pleasure the action already taken by the Council of the Royal College of Veterinary Surgeons in order to endeavour to obtain for the profession a penal clause; and further, this society hereby wishes to record its willingness to render hearty support, pecuniarily (if necessary) and otherwise, to the Council in their efforts to procure the object inview."

Mr. T. Briggs, F.R.C.V.S., then read an interesting paper on "Some of the Products of Inflammation."

He said:—At the last meeting of this Association, our energetic Secretary, Mr. Locke, insisted upon my reading the paper of this evening, as an earnest of my willingness to contribute my quota. As a junior member of the society, I decided upon a scientific subject, in the belief that the selection of a treatise of such principles as underlie our daily experiences would be an appropriate method of calling forth the valued observations and experiences of our senior members.

At first I mapped out more than I have since thought it wise to attempt to exhaust.

I propose to describe and illustrate to you the anatomy of inflamed tissues as generators of pus, together with a brief sketch of the nature of repair by inflammatory new formations. At the outset I must acknowledge the assistance of my brother, Mr. A. W. Briggs, who undertook to illustrate the subject by this series of diagrams.

In discussing suppuration as one of the products of inflammatory action, it is necessary to allude briefly to the properties and composition of pus. Healthy or laudable pus is defined as "a creamy, thick, opaque, and homogeneous fluid; communicates an unctuous feeling when rubbed between the fingers; is of a yellowish tint; sweetish or insipid; and while warm gives off a peculiar mawkish smell." If allowed to stand in a test tube, it separates into an upper clear, thin layer, and a lower yellow sediment. The latter consists of pus-corpuscles, the former being a fluid intercellular substance. On examination under the microscope, pus-corpuscles assume an appearance of finely punctuated globules, containing three or four dark nuclei. Acetic acid dissolves the pale granules of the protoplasm, and brings into view the nuclei, which are not acted upon by the acid. Alkalies readily dissolve the

pus-globules, and afford a confirmatory test of the nature of urinary and other purulent deposits.

Von Recklinghausen described the above characters as exhibited by dead pus-cells under the microscope. Max Schultze observed, however, that pus-cells in a moist, heated chamber exhibited amæboid movements, like other clumps of living protoplasm. The diagram No. 1 is intended to show the three different conditions of pus-cells.

The chemical examination of pus has proved that it consists of water, proteid substances, including choleaterim, salts, and so-called extractives. Dr. Walshe remarks the peculiar property of pus in resisting decomposition, and that while it retards the putrefaction of substances immersed in it, it would appear to actually dissolve a piece of muscle without putrefaction. In treating of the source of pus, I must again refer to the separation, on standing, into serum and corpuscles. The agreement of the former, or liquor puris, with blood serum in its characters, has led authorities to regard it as exuded liquor sanguinis.

The origin of pus-corpuscles has been the subject of much controversy. I will not enter into a lengthy discussion of the theories advanced by the different pathologists.

In our search for the origin of pus-corpuscles, it is well to take a comprehensive view of the tissues in which cells agreeing more or less with many of the characters of pus-corpuscles are to be found. For example :—

Firstly, corpuscles largely circulating, in the blood-vessels known as white blood-corpuscles, and in lymphatics as lymph-corpuscles, present characters closely resembling pus-cells.

Secondly, connective tissue, bone, and cartilage consist of cellular and intercellular elements. The former are granular nucleated masses of protoplasm, with or without branches, known in connective tissue as connective tissue-corpuscles ; in cartilage as cartilage cells ; and in bone as osseous corpuscles. In addition to these, the fixed, or stationary corpuscles, there exist in connective tissues certain cells named wandering cells, first described by Recklinghausen. The so-called wandering cells are identical with blood and lymph-corpuscles.

Thirdly, there are also, entering into the formation of skin and mucous membranes, cells constituting a distinct layer on the surface, known in the skin as epidermis, and in mucous membranes as epithelium.

Fourthly, the cells occurring in the various glandular organs forming the actively secreting or excreting elements, in many cases of the epithelial type, should be enumerated amongst groups presenting some points of resemblance to pus-cells.

In 1867, Professor Cohnheim, of Berlin, minutely described the process of emigration of leucocytes, or white blood-corpuscles. In the diagram No. 2, which is copied from one by Dr. Caton, in the "Journal of Anatomy and Physiology," 1871, a blood capillary and small vein are represented, and you observe the white blood-corpuscles in contact with the walls of the vessel, some of them with small processes, others with larger processes, until at last the whole corpuscle becomes extra-vascular. Thus we have introduced into inflamed tissues cellular emigrants from the blood-vessels.

Although two Englishmen—Dr. Addison, in 1842, and Dr. Augustus Waller, in 1846—had detailed similar phenomena, it was not until after Cohnheim's investigations that this migratory process occupied an important place in pathology.

Inflammation of connective tissue, tending to suppuration, has been long known as phlegmonous inflammation. Direct anatomical examination has disclosed certain naked-eye characters presented by the affected part when superficial—but to these I need not do more than cursorily allude—such as

swelling, redness, etc. Microscopic investigation has shown that the cells increase in number at the expense of fibrillar intercellular substance, which gradually disappears.

This diagram, No. 3, will render the formation of abscess in connective tissue more clear. You notice that the young cells are collected in patches, corresponding to the site of the original connective tissue-corpuscles, and that, in the middle of the drawing, the smaller collections have become fused. It can be readily seen how these groups may extend irregularly in their circumference. Formerly Virchow, in his "Cellular Pathology," asserted that the groups of pus-cells were produced by the multiplication of the previously existing connective tissue-corpuscles; but taking into consideration Cohnheim's researches, we can now say that many, if not all, of these cells are leucocytes escaped from the blood-vessels of the tissues. I may here allude to the circumstance—of which I shall speak more fully hereafter—that by artificial injection capillary vessels have been shown to exist in the form of loops around these collections.

Thus is demonstrated the practical fact, the pyogenic membrane of the older writers consists of the circumferential layer of young cells or leucocytes, lying amongst loops of capillaries. By the aid of diagrams 4 and 5 you may gather more clearly what I wish to convey. The pyogenic membrane, in short, consists of granulation tissue.

The best illustrations of proliferation of tissue-corpuscles can obviously be obtained by studying the process of inflammation in the least vascular tissues, such as cartilage and cornea.

Redfern, in the *Edinburgh Medical Journal* for 1849, described in minute detail the changes observed in ulceration of articular cartilage. He recognised that after the introduction of a seton, the first departure from health consisted in an enlargement of the cartilage-cells, which became five or six times their natural size; at the same time they became irregular in their distribution in the cartilage. The diagram No. 6, representing the changes seen in inflamed cartilage, is copied from one by Cornil and Rauvier. The normal cartilage-cells are depicted at the left-hand corner; and a little to the right the cells enlarged with many nuclei; still further, you see the cells multiplied within their capsules. At the extreme right hand a mass of young cells are illustrated now occupying the extent of the original corpuscles and matrix. The matrix, bluish-tinted, gradually breaks down and disappears. Redfern thought that the young cells thus produced did not become pus-cells; but Weber subsequently showed that pus-cells may then be generated. The series of changes I have briefly sketched constitutes an important step in the doctrine of parenchymatous inflammation.

Similar phenomena have been recorded in inflammation of the non-vascular cornea by Strube, and is also by Virchow. Acute catarrhal inflammation, or inflammation of a mucous membrane has afforded examples of suppuration on epithelial surfaces. This diagram, No. 7, after Rindfleish, is intended to represent the appearances presented by inflamed conjuctiva on a vertical section. You recognise the epithelial elements, tinted yellow, and underneath these the sub-mucous connective tissue. The generation of pus from the actual elements may have a double source. If the pus-cells on the free surface of the epithelium, as seen in the diagram, are produced by proliferation of the epithelial cells themselves, it is evident that pus may be formed without abrasion of the surface. If, however, the pus-cells owe their origin to multiplication of the deeper connective tissue-corpuscles, ulceration of the superjacent epithelium must ensue.

It is now maintained that pus-cells take origin by proliferation of the deeper epithelial cells. In the same diagram some large so-called mother-cells are displayed, with their contained broods, which (broods) are expelled

as pus-corpuscles. It has been suggested by Volkman that these mother-cells have simply derived their contents from the young cells of the underlying connective tissue. The mother-cells, therefore, are capable of a double interpretation, that is to say, the young cells are taken up by an epithelial cell from without, or produced by endogenous multiplication in the epithelial cell itself.

The origin of pus in glandular abscess has been ascribed to multiplication of the proper glandular cells, and to the connective tissue-corpuscles having a similar double source, on which I need not dilate.

Having brought before you some points in connection with the formation of pus in abscess and on mucous surfaces, I will now allude to the connection of pus with granulation tissue as seen in wounds.

Before commencing this portion of my subject, let me shortly describe the structure of granulation tissue.

Inflammatory new formation, or ordinary cellular tissue as observed in the healing of wounds, was designated by Virchow "granulation tissue," and by Rindfleish "germ tissue." It consists of a greater or less number of cells agreeing with the leucocytes of the blood, or the wandering cells of connective tissue. By a reference to the diagrams 4 and 5 you notice the round cells surrounding fine capillary loops, tinted red. The bright redness of granulation tissue is due to the blood shining through the transparent young cells. The tissue is very vascular. A granulating surface is not even and smooth, but presents minute granular or papillary eminences due to miniature heaps of the cells. Let us now inquire whence these young cells come? Cohnheim made some interesting observations with the view of determining this point.

I have spoken of the migration of white blood-corpuscles, as illustrated in diagram No. 2. Cohnheim introduced aniline into the lymph-sac on the back of a frog, and after cauterising the cornea of the animal, he found, at the irritated spot, wandering cells exhibiting the aniline staining. He therefore came to the conclusion that the inflammatory cellular infiltration consists of emigrated leucocytes.

It now remains for me to direct your attention to certain connections between granulations and the healing process. Let me recall to your recollection some of the naked-eye appearances which are observed in a gaping wound, or a wound attended with loss of substance. After the first twenty-four hours, the margins are slightly reddened, somewhat swollen, and sensitive to the touch—the same symptoms as in closed wounds. For the first day or two the surface looks grey and gelatinous, with perhaps a trace of redness; small fragments of dead tissue are adherent to the surface. On the third day the wound "cleans off," and if examined with a lens of low magnifying power, fleshy warts or granulations are seen. For the few subsequent days the granulations become greatly developed and the fluid flowing from the surface, of creamy consistence, presents the characters of pus already described, and in the words of the old authors, "*pus bonum et laudabile.*"

The changes I have just enumerated are susceptible of great variation. According to the size of the dead masses of texture, the loosening of larger masses requires a longer time, but the pathological process is in all cases the same; the line of separation exhibiting groups of small cells. In diagram No. 8, which illustrates the separation of a slough, you recognise, by difference in colour, the living textures below, the textures above, and in the boundary between the two, the active cellular elements, which, by a process of absorption, loosens the dead from the living. I cannot do better than ask you to inspect the diagram, No. 4, which is taken from Billroth's work on "Surgical Pathology." A section of a granulating wound is shown, and in order to bring out the distinction between the pus and the granulation tissue-cells, the former

are represented as having been acted upon by acetic acid, and forming a layer on the surface of granulation cells. You observe the capillary loops are tinted red, and groups of young cells are seen lying amongst them.

From these remarks you will gather that pus is one of the products of granulation cells. When granulation tissue grows rapidly, owing to irritation or other causes, pus formation is more marked. Early in my paper I followed the mode of formation of abscess in connective tissue. May I ask you to compare the appearances presented by the so-called pyogenic membrane and the healthy granulating surface by reference to diagrams 4 and 5. The pyogenic membrane has the similar small-celled structure and the similar capillary loops.

In the main, the great practical difference is this: that the pyogenic membrane, in the recent condition, forms a complete retention sac, whereas the granulation surface of a wound is open.

We naturally ask ourselves: How is it, that an abscess continually grows larger by increase of contents? Unless some foreign or dead bone, as dead bone or slough, is present, the irritation of the granulation tissue of the pyogenic membrane is kept up, principally by the tension of its contents. Of this we have proof by the physical signs and the pain of which the animal gives evidence

The young cells exert a disintegrating action on surrounding structures, following the direction of least resistance, until the abscess "points" at some free surface. Poultices and other form of moist heat favour the dissolution of the textures, by rendering them more permeable to fluids.

Antiseptic surgery, by its results, has shown that when such a collection of pus is laid freely open, and tension removed, the granulations of the pyogenic membrane behave as do those of the ordinary healthy healing wound, to which I have already directed your attention—that is to say, where the sac-like pyogenic membrane is opened out, its purulent discharge gets free vent, and it is reduced, somewhat imperfectly, to the condition of an ordinary granulating surface, as in a healthy ulcer. The opening of an abscess removes the irritation produced by tension, and if external irritating conditions be kept out, as by appropriate antiseptic dressings, granulations have been seen to grow without the production of an atom of pus. So far the cells of granulation tissue have been conclusively shown to be derived from emigrated blood-corpuscles and proliferated tissue-cells. The relation of granulation tissue to the healing of wounds and the secretion of pus, together with the modifying influence exerted by irritation on pus formation, has been established.

A question now arises, Is pus the only product of granulation tissue? Granulation tissue grows, and suppose the process of growth went on, we should find a fleshy tumour, consisting of small round cells, like white blood-corpuscles, with little intercellular substance—in fact, we have in granulation tissue, an identity in structure with what is known as a round-celled sarcoma. It is needless for me to draw your attention to the fact that these round cells of granulation tissue are of the same structure as the embryonic cells from which all cells are primarily developed.

In the diagram No. 9 these young spherical cells are represented in a healing sore, and at the right-hand corner you observe, coloured yellow, a formation of cuticle or epidermis; deeper you notice some of the cells of the tissue become spindle-shaped, and develop into fibrous tissue; simultaneously with these changes, the secretion of pus commences to disappear. At the right-hand corner the cuticular formation is shown.

Why does epidermis, in cases where the skin has been wholly destroyed, form only at the edges of a wound? This has been a tedious problem to most observers.

The fact that a successful graft leads to an island of developing epidermis is capable of two explanations. The newly-planted epidermic cells, like those at the edges of the wound, may themselves proliferate and develop a progeny of scales by their multiplication; or, to speak more definitely, epithelial scales arise by multiplication of previously-existing epithelial cells.

The second interpretation suggests that the young cells of the granulation tissue are influenced by the nature of the surrounding structure. The skin-graft acts, we may say, as a decoy, leading the young cells of the granulation tissue to develop like unto it, into epidermic scales of the cicatrix. Similarly, the deeper connective tissue-elements may be looked upon as exerting the influence of their presence on the deeper cells, leading to the development of them into connective tissue.

It is extremely interesting to find that granulation cells formed to repair a breach of osseous tissue, such as after fracture, necrosis, or abscess, develop into bone. In the development of granulation cells into bone, however, it is of the highest importance that absolute immobility be maintained by some suitable means; the reason seems to be, that bone normally is inflexible and passive, and that, so to speak, unless the natural condition of texture be maintained, the decoy influence is not exerted. This is well illustrated in fibrous union, after a fracture of bone, when the two ends have not been kept in quiet apposition.

Fibrous tissue is essentially a flexible and yielding structure. Under circumstances, therefore, encouraging mobility, granulation cells develop into fibrous tissue, even in the immediate neighbourhood of bone. Granulation cells are incapable of reproducing muscular and active glandular tissue. In these situations the ordinary fibrous cicatrix, as represented in diagram No. 10, is developed.

Gentlemen, in this brief outline of the microscopic anatomy of suppuration and granulation tissues, it has been my endeavour to put the matter clearly before you. I do not claim for my paper anything more than an embodiment of many of the current views on the subject. To be conversant with the nature of the material with which we have to deal in these processes should be our aim. Underlying our successful treatment of most, if not every one, of those surgical cases in which pus and granulation tissue are important factors, is a correct appreciation of these principles, so far, at least as they lead us. I know that my subject is deserving of careful attention, and that it has a great interest, in its scientific aspect, for the practical man. I know, too, that whilst I have barely touched upon some important points, I have overlooked others equally important. I have done my best to please you, and I hope you, gentlemen, will do your best to please me, by taking up an instructive discussion, and that you will fill up the gaps I have left.

The paper gave great satisfaction, and led to an interesting discussion. A hearty vote of thanks was accorded the essayist.

The usual vote of thanks to the Chairman closed the meeting.

SAM. LOCKE, *Hon. Sec.*

WEST OF SCOTLAND VETERINARY MEDICAL ASSOCIATION.

A MEETING of members of this Association was held in the Veterinary College, Glasgow, on Wednesday, the 31st March; Principal McCall, President, in the chair.

The following gentlemen, amongst others, were present:—Professor Walley, Edinburgh; Messrs. Robinson, Greenock; Mr. Constable, Inchture; Mr. McConnell, Coatbridge; Mr. Kerr, Beith; Messrs. Robb, Mitchell, Anderson, Macqueen, and Anderson, Glasgow.

Professor MCCALL, in opening the meeting, spoke as follows:—

Gentlemen,—Twenty-two years ago, in this same city, and while connected with the Edinburgh Veterinary College, I had the honour of assisting at the birth of this the first veterinary medical society, and of delivering the first inaugural lecture which had been delivered in any veterinary medical society in these kingdoms. That honour, however, was conferred upon me at the request of, and as the substitute for, my dear old friend and instructor, the late Professor Dick. That meeting was held within the Athenæum, and included the principal veterinary surgeons in the west of Scotland; and among the number, Messrs. Cockburn, Anderson, McLean, Marshall, Bryce, Aitken, Steel, Moir, Robinson, Donaldson, and many others. Of the few names mentioned—sad to say—very many have fallen by the hand of death, and few of us are left to reassemble this day; nay, I think with the exception of Mr. Anderson and Mr. Donaldson (who have retired from the labours of their calling, to enjoy, as we hope, a few years' rest in the bosoms of their families), Robinson, Moir, and myself, all are gone. Then I stood forth, the stripling in arms, the youngest soldier in the ranks; now I appear the veteran in arms, the oldest general in the field. Such, gentlemen, is life, and morals innumerable might be drawn from the consideration of what I have stated, but in the meantime I will not, in that direction, trespass on your time.

To-day, gentlemen, the object we have in view in gathering ourselves within these walls, is to resuscitate the society inaugurated in 1858, and then denominated the West of Scotland Veterinary Medical Association. And in awakening it to life, I shall probably handle it a little roughly, but as I assisted at its birth, and have regularly watched its growth (although, it must be confessed, for many years at a distance), and am well aware that it is not so lifeless as it appears, trust me, a little plain speaking will do it good. In awakening it to life, I shall very briefly refer to a few of the advantages which may be expected to arise out of its resuscitation and continuance in active life, provided the energies of its members are concentrated and harmoniously displayed. It is a familiar expression, and true to life, "No man liveth to himself," yet how very apt are we, in the battle of life, so to push forward as if the aphorism were false, as if each individual lived for himself, and for himself alone. Now, to my mind, we could not have conceived a more certain means of recognising and developing the principle referred to, and of demonstrating that we live for the good of each other, as well as ourselves, than by resuscitating this society. Here we meet on common ground, and with common interests, and the rights and the privileges of each member ought and shall be equally respected. This, I am sorry to say, has not hitherto been the guiding principle of the society inaugurated in 1858; and with all deference, has been the principal cause of the apathy exhibited by many of its best friends. But, turning from this unpleasant aspect of the subject, the times in which we live are proverbial for the formation of societies, associations, and such-like kindred institutions, and if for no higher reason than keeping pace with the times, and continuing the good example first set by those who inaugurated this society, and which has been imitated in so many other towns and cities, it were high time we had again enlisted under one common banner. In the arts and manufactures the benefits of co-operation are admitted on all hands, and to come abruptly to the point I am aiming at, may co-operation not as much benefit veterinary science? There are many aspects in which we might view and answer such a proposition, but time will only permit me to select two. Firstly, as benefiting the pecuniary interests, and elevating the status of the profession; and secondly as advancing our knowledge of the science and the art. As regards the first, I think it will be freely admitted, that according to the present constitution of our country, with a few exceptions, the pecuniary emolument

derived from the practice of a profession, is an index, so to speak, of its social standing. Now co-operation has invariably proven itself directly or indirectly to be a certain means of securing the pecuniary interests of parties.

"The labourer is worthy of his hire," and however laudable may be our desires, we can neither benefit the public nor ourselves by tendering our services at less than their value. But, it may be asked, what is their value, pecuniarily expressed? I should not like to appraise them. It is a matter, so far, of conscience with each member of the profession, and of policy with the body collectively; but under any circumstances, surely a sum considerably greater than is asked and obtained by a city porter for carrying a parcel, say the same distance from our places of business as we make a professional call. Yet we all know that there are persons in our profession who travel about, and charge fees sometimes less than a city porter. I would be the last to advocate a policy which would press hard upon our clients; but by all means let us charge a fee becoming a professional man in all cases where our clients can afford to pay, and where they cannot, from poverty, let us bestow our services ungrudgingly and without a fee. I am not given to charge high for my services, nor do I put stress upon my position, and frequently I have a cheque for a larger amount than my account enclosed to me; nor do I refer to the subject of charges because I have felt the pressure of such upon my business, not at all; but I have heard others deplore it, and moreover I have seen its bad effects. It has yet to be proven that a reasonable charge is counter to the interests of our employers and the welfare of our patients; for services poorly requited, as a general rule, are grudgingly performed and imperfectly discharged. It is a question, however, how far societies formed for the sole and direct purpose of fixing fees to be charged for services rendered have been productive of good, either to the individuals themselves or the public at large. Indeed, I incline to the opinion that they have done more harm than good; nor do I wish this society to infer that I desire its members should fix a scale of fees to be charged for their services. In this and similar matters the society can only appeal to the feelings and honour or each of its members, and suggest the urgent necessity there exists for its members being more intimately linked and acquainted with each other. As professional men we do not cling sufficiently to each other; the chain which binds us is not sufficiently strong. By periodically calling you together, and thus affording an opportunity for drawing out the sympathies of brotherly love, which we in common, in a greater or less degree, possess; and by guardedly exercising a spirit of charity towards each other in our intercourse, this Association is eminently suited to advance the pecuniary interests of the profession and elevate its status. And now let me direct your attention to the second aspect of the subject or proposition, viz., the power or influence this society may exert in advancing our knowledge of veterinary science and art.

The science which we profess, as all of you are well aware, belongs to the class termed *inexact*, as distinguished from the *exact;* it has also its art as well as its science. These relations are frequently but ill-defined in the mind of the practitioner, and as a consequence in practice and other ways they are confounded. If this society is to assist in advancing the studies of our profession, inquiries must be conducted on a liberal basis, and with due regard to all conditions. It will not do to ignore theory at the dictum of practice, as some minds in the past history of this society have unsparingly done. I do not anticipate that this society, or others of a similar character, will revolutionise the theory and practice of veterinary medicine, inquiries tending to such results are more within the province of our colleges; but, as the teaching institutions are imperfect in many respects, and unable, from

pecuniary and other causes, to conduct experiments and researches on a sufficiently extensive scale, it is wonderful what an amount of assistance the colleges might derive through the co-operation of veterinary medical associations. In particular I think provincial veterinary medical associations might be the means of shedding much light upon the diseases of cattle and sheep. Country practitioners have daily opportunities of studying the diseases of cattle and sheep, as they affect them in a state of nature; whereas town practitioners have few such opportunities. In prosecuting your studies you have also the benefit of the previous history of the animal, with its idiocrasy, and many other little details, which, when placed together, make not only a very interesting and connected account of the case; but further, from its accuracy, it forms the basis from which sound deductions may be drawn, and clever views promulgated as to the pathology and treatment of such affections. I would therefore strongly urge the provincial members of this society to bestow special attention upon the diseases of cattle and sheep, and as far as practicable prosecute researches bearing on their origin and nature. Proclaim the results of your inquiries after they have been subjected to the ordeal of discussion at our meetings, and in doing so you will confer a favour upon the whole body of the profession, and in no inconsiderable degree advance the knowledge of the science, and the practice of the art.

Through the kindness and impartiality of the editors of the *Veterinarian* and VETERINARY JOURNAL, you will always find the columns of our professional journals open to receive your contributions, and I would suggest that you take greater advantage of this boon than hitherto has been the case. A paragraph of a meeting, with the mention of members present, and the name of the subject discussed, will do little for any cause, and is neither creditable to the member introducing the subject, nor to the gentleman acting as secretary for the society.

But to return, there is scarcely a disease regarding the pathology and treatment of which two opinions may not be entertained. These opinions may be founded upon principles widely different, or so closely allied, that to some minds they appear a distinction without a difference. But as two of us cannot look through the same pair of glasses at one and the same moment of time, and even although we could, as vision differs in degree, we might fail in recognising the same object; and as reason, like vision, differs also in degree, and at most is an index of the capacity of the mind in that particular direction, we should not be in haste condemning the opinion of our fellow, as the defect, if one, may, after all, be our own and not his. In discussion there are some minds very rabid and intolerant of the opinions of others, and, with all deference, I have observed this condition as frequently in the old as in the young. Such a condition of mind is most disagreeable, and apt to make the possessor believe that when you challenge his theory, you attack his veracity and honour, and thus insult his dignity. Now I beseech of you, above everything, if you desire or expect the society to be a means of cementing you more closely together, if you wish it to be a mutual benefit and pleasant retreat from the cares of business, if you wish it (as it is calculated to do) to send you home better friends with your professional brethren, and better friends with yourselves, abstain and eschew all tendency to that nasty and unhappy condition of mind I have termed rabid and intolerant. Let your discussions be conducted with calmness, singleness of purpose, and in a spirit of tolerance, and while striving to enforce the claims of your doctrine, let your language and your manner prove that you are speaking to a point, and not for argument's sake or a desire to differ.

With these few hurried and disjointed remarks, and thanking you, which I now beg to do, for having placed me in the presidential chair, and for the

spirit in which you have evidently accepted my suggestions, I shall now offer a few remarks upon "Stricture," or Hour-glass Contraction of the Stomach of the Horse, and Vomition in the same subject.

A short report of this will be contributed to the next number of the VETERINARY JOURNAL. Also a description of two ingenious compound instruments, devised and introduced to the members by Professor Walley.

JAMES ANDERSON, *Secretary.*

YORKSHIRE VETERINARY MEDICAL SOCIETY.

THE usual quarterly meeting was held at the Queen's Hotel, Leeds, on the 20th of April, the President, Mr. W. G. Schofield, in the chair,

Dr. Goldie, medical officer for the borough of Leeds, Messrs. R. L. Robertson and F. A. Cuthbert, were present as visitors.

Mr. R. L. Robertson, Leeds, was nominated for membership.

The PRESIDENT, in referring to the death of Mr. Cuthbert, alluded in feeling terms to the loss the Society had sustained in its respected Treasurer, and moved that a vote of condolence be sent to Mrs. Cuthbert and family. This was seconded by Mr. Freeman, and supported by Mr. Naylor.

Mr. J. H. Ferguson was elected Hon. Treasurer, *vice* Mr. Cuthbert.

The SECRETARY read a letter from Mr. Greaves, stating that some steps were being taken to obtain a penal clause in a new Bill. After some discussion, in which Messrs. Naylor, Freeman, P. Walker, the President, and Secretary took part, it was unanimously resolved that "the Society support the movement with all its available means;" and it was also resolved, on the motion of Mr. Naylor, seconded by Mr. Parlane Walker, that the President and Secretary draw up a petition to memorialise the Council to press forward the Bill without delay.

Mr. PARLANE WALKER then read an essay on diseased meat. In the discussion that ensued, Mr. Freeman made some remarks on Tuberculosis or Calcareous deposits, stating that, in his opinion, the deposits were often caused by the nature of the soil upon which the animal was grazed.

Dr. GOLDIE said that he was pleased to be present upon this occasion; he thought medical officers of health were fully qualified to examine and determine as to the condition of the internal organs of animals, and whether their flesh was fit for human food; he also detailed the different modes of slaughtering animals as practised in this country, and exhibited some specimens of diseased lung-tissues, and pointed out the different pathological appearances presented.

The discussion was carried on by Messrs. Peter Walker, Freeman, Anderton, and the Secretary.

Mr. FREEMAN exhibited a remarkable specimen of Osteo-porosis.

A vote of thanks was unanimously accorded to the essayist, proposed by Mr. Naylor, seconded by Mr. Freeman. A vote of thanks was also accorded to Dr. Goldie for his able remarks upon the subject matter of the essay.

The following is Mr. Walker's essay:—

A short time ago our worthy secretary did me the favour to come over to Halifax to give his professional opinion on a peculiar case that was then in my hands; and I should not have presumed to obtrude myself upon your attention, were it not at the instigation of our friend Mr. Broughton. But, possibly having in mind the exigences of his position as secretary to provide something at least for your consideration, he suggested that I should afford him a "quid pro quo" for his able assistance, by giving you a paper on the subject of the case, a discussion on which in his opinion would be useful to the society.

The paper may be entitled what is wholesome and what is unwholesome meat.

On the 4th February last, I was requested to visit the farm of the defendant in this case, and on my way to the farm I got to know from disinterested parties that the cow whose carcase I was going to examine was really hanged, but had been stuck before it was dead. On my arrival I examined the carcase and internal organs minutely, and smelled it all over; and from the appearance of the carcase the characteristic symptoms of the internal organs, both horns knocked off, the whole place bespattered with blood, and that the animal was in a perfect state of health the night before, coupled with the straightforward tale of the defendant, and his brother and sister, I was fully satisfied the animal was strangled, and was stuck before the heart had ceased its functions. On the face of these facts, I gave a certificate that it was fit for human food, and the man took it to Halifax market. But on its arrival there it was condemned and burned, and the man summoned. He duly appeared before the magistrates, and was confronted by a member of the sister profession, the medical officer of health for the borough, a M.R.C.V.S., an empiric, a ruling butcher and a market meat-inspector. The owner of the animal produced my certificate, and after some discussion the magistrates adjourned the case for me to appear and defend the certificate. I did appear, in company with my friend Mr. Broughton and my brother Peter from Bradford. The line that the prosecution took was that the flabby nature of the carcase, and the congested appearance of the lungs, and softness of the heart and liver—all indicated, in their opinion, that the animal had been diseased for some time. The medical officer of health went the length of saying that the lungs, heart and liver were in a rotten state. This was the kind of evidence we had to refute, and the prosecutor's cross-examination assumed the following shape. I may say, in the first place, we proved that the animal was in a perfect state of health at 10.30 the night previous, and was found almost dead from strangulation at 3.30 a.m. In cross-examination by the town clerk assisted professionally by the M.R.C.V.S.:—

Q. Did you examine the lungs, and what method did you adopt?

A. I did, in the customary method with my hands and eyes.

Q. Did you make a section of the lungs?

A. I did not consider it necessary to make a section, being so conversant with the unmistakable appearances of congested lungs from strangulation, having had two cases immediately preceding this one—when once seen can never be forgotten.

Q. Would you believe the lungs to become dark in colour?

A. I would, from the fact that glandular substance highly congested with blood, and exposed to the atmospheric influences for a short time, soon assumes a different aspect, and might have the appearance and consistency of tar when cut into.

Q. Was the heart flabby?

A. Yes.

Q. Do you consider a flabby heart fit for food?

A. It depends on the predisposing causes and the surroundings of the case.

Q. What are the predisposing causes in this case?

A. This poor animal was hung by the neck probably for a number of hours, struggling with pangs of death to relieve itself, and in the greatest state of excitement and perspiration until eventually it had to succumb to its fate almost thoroughly exhausted, is sufficient in my mind to soften the heart of any animal and for it to remain so.

Q. Did you examine the liver, and how did you find it?

A. I found it congested in like manner as the lungs.

Q. Would you believe it to be watery when we examined it?

A. Quite possible that the blood had began to break up and liquor sanguinous had left the solid parts, and might even be oozing through Glisson's capsules.

Q. Would, in your opinion, the carting of the carcase nine miles have a tendency to soften it?

A. Very possibly.

Q. Do you consider soft meat fit for food?

A. It depends on the predisposing causes.

Q. Can you give any predisposing causes in the case in question?

A. Yes, the cow was in milk and lean, and every one knows that the principal stiffening agent is the adipose tissue or fat it contains. The great exhaustion the animal suffered. It is an authenticated fact that a hare run to death is not so firm and valuable in the market as one that has been coolly shot. In a man strangled the *rigor mortis* is very mildly developed, and this might also hold good in the lower animals.

Q. Don't you know that this animal died of Pulmonary Apoplexy?

A. We have no such disease in cattle.

Q. Suppose we call it, instead, "Congestion of the Lungs"?

A. I have never found congestion of the lungs as an independent disease in cattle; it is always due to some mechanical agent, such as a potato or a turnip in the throat, or from strangulation; and the only case I know on record of congested lungs as an independent disease arose at Smithfield Show, London, and which occurred in plethoric animals inhaling a dense foggy atmosphere. Of course we have congestion of the lungs in the first stage of inflammation.

Q. Do you consider dark-coloured meat fit for food?

A. It depends on circumstances.

Q. Suppose this animal was dead a few hours before it was stuck, would you consider it fit for food?

A. I do, inasmuch as in a few hours there is no time for diseased products to get developed. If otherwise, why do not hares, rabbits, and other animals that are trapped and ginned come under the category of unwholesome food?

Oral confirmation of this evidence was given by Mr. Broughton and my brother, and written confirmation of our position was produced in court from Professors Williams and Axe; Messrs. Greaves and Taylor, Manchester; Robinson, Greenock; and the case against the owner of the animal was dismissed. You will see from this cross-examination that the evidence in support of the case against the owner was altogether lame. What did the Medical Officer of Health know about congested lungs from strangulation, and the appearances they present when for some time exposed to atmospheric influences? In his cross-examination he said the appearances of the lungs in question were not what he would expect to see from strangulation. I infer from that, and I have it on good authority too, that he never saw congested lungs from strangulation in his life, either in the human subject or any of the domesticated animals. When we returned from court another carcase was in my yard to be examined, and which had been slaughtered at my suggestion owing to prolapsus of the uterus. The history of it was well known, and a certificate was given that it was wholesome. This case, too, would have been fought, but the animal belonged to a gentleman they did not care to encounter, consequently it was passed. A great deal of misconception obtains as to what is wholesome and unwholesome food, and of course it very much depends upon the antecedents of the case, and these two cases only indicate on what slender hypothesis meat is condemned, and how necessary it is to defend your own well-ascertained convictions. These

two carcases were undoubtedly fit for human food. The prevailing method of judging meat is to have it firm, white, and clean, and to examine the internal organs and see that they are free from disease. This is a very safe system, but it does not hold good at all times; inasmuch as an animal that has suffered from some purely mechanical lesion, and has undergone more or less exhaustion—the meat of such will be more or less soft and watery, but still fit for food. I maintain the more irritative fever and exhaustion an animal suffers you have a corresponding amount of softening of the muscular and other tissues. Take, for example, a horse that has been overdriven, and dies from sheer exhaustion. On *post-mortem* examination we find the whole of the internal organs and muscular tissues soft; hence the wisdom of allowing animals to rest after a fatiguing journey before slaughtering them. Another erroneous practice of condemning meat is from its dark colour. Now meat may have a dark appearance and yet be fit for human food, inasmuch as an animal that has been chased and heated, and then immediately killed will be more or less flabby and dark-coloured. Again, an animal that has suffered irritative fever, or from any tiring lesion, the carcase of such will have a tendency to be dark-coloured. I believe it sometimes happens that as soon as the animal is struck with the pole-axe, death takes place at the heart; consequently, bleeding under such circumstances will not be so favourable, and the meat will have a dark appearance. Even under the most favourable circumstances of bleeding, the blood is not all expelled from the system; it is the blood that gives the reddish colour to the flesh, and why should a little extra blood left in the vessels constitute unwholesome meat so long as the blood is pure? The blood is the life thereof, and a commodity that is in daily use. It was affirmed in court by the veterinary surgeon for the prosecution, that no correct judgment could be given until the animal had been dead twenty-four hours. This seems to me a wild proposition; rather ought we to be able to give a sound opinion immediately after the carcase is hung up and the internal organs examined, providing the history of the case has been also ascertained. Without this it would be impossible in many cases to give a correct opinion, whether it had been dead twenty-four hours or not; and here I might advance that it would be a wise precaution to give no certificate without having first either seen the animal suffer or ascertained reliably its previous history. And further asking your forbearance in going a little wide of the declared object of this paper, how necessary it is that we should prepare ourselves with all the care and support that our profession offers in defending our position and opinion! We have to encounter medical gentlemen with all their distinguishing titles, and the weight that those titles too often imparts when the bearer of them trespasses upon our domains; and the experiences of all of us will bear witness to this. How many times have medical gentlemen come into court and given evidence on things they clearly do not understand, touching our profession, and where, if the least preparation had been made by members of our profession, the opinion of the said medical gentlemen would be shown to be fallacious. There are some things in animal pathology that they may be able to speak accurately upon from their experience of the human subject; but there are more things in heaven and earth than even they dream of in their philosophy. Let us then be undaunted, even though we have to encounter a physician or two. It is astonishing what ignorance prevails among them when they get out of their own groove, and you would laugh were I to give you the manifestations of this which have occurred in my town. I have already trespassed upon your time more than I had intended, and my object is not to offer you a scientific paper. I should, therefore, content myself by suggesting a few practical hints on the reverse side, by shortly enumerating what I think constitutes unwholesome meat. It is a prevailing practice here

to certify as wholesome food animals that have suffered and even died from Parturient Apoplexy. This I consider highly reprehensible, because it is evidently a blood-poisonous disease, which is highly contagious in the human subject, and, in my humble experience, in the lower animals also. Again, an animal suffering from Phthisis in my opinion is unfit for food; for how often have we found fat and well-fed animals when killed positively full of tubercles, and no purer meat in appearance came into the market—the adipose tissues as white as snow. I would even go the length of saying that the milk of such animals is injurious; yet who will say that they don't find their way into our butchers' shops. It is a disease that is very prevalent in this district, and I think it calls for a stamping-out process in any animal as soon as it manifests itself; for I believe it to be contagious. And not to weary you, should it not be admitted that all animals suffering from blood poisoning are unfit for human food? Also Braxy in sheep, Typhoid Fever and Measles in pigs, come under the same head. These opinions are not advanced in any dogmatic spirit, but simply to excite discussion and to strengthen ourselves to meet these knotty cases which must from time to time confront us.

SCOTTISH METROPOLITAN VETERINARY MEDICAL ASSOCIATION.

A QUARTERLY meeting of the society was held in the London Hotel, Edinburgh, on Monday the 3rd May, for the purpose of hearing a paper read by Mr. Fleming, Army Veterinary Inspector, on the "Spontaneous Development of Contagious Diseases." This being also the date of the annual general meeting of the Royal College of Veterinary Surgeons, there was a very large attendance of members and other veterinary surgeons from a distance. In the absence, through illness, of the President, Mr. Connochie, Selkirk, the chair was occupied by Mr. Borthwick, Kirkliston. Mr. W. S. Low, V.S., Burntisland, was elected a member of the Association.

Mr. Fleming then proceeded to read his paper as follows:—

Since the introduction of the experimental method of research into the study of disease, great and striking progress has been made in general and special pathology; and while human medicine has been benefited to a proportionate degree, veterinary medicine has largely shared in the advantages it has conferred. And perhaps in no branch of medicine—human or animal—have the benefits to be derived from the experimental method been so marked as in the investigations into the nature of those maladies we term "contagious," "zymotic," or "specific." The spontaneous origin of these disorders had, up to a comparatively recent period, been a generally accepted notion—indeed, an article of faith or doctrine which is, at least for some of these diseases, still held by many medical and veterinary practitioners. But the doctrine of spontaneous origin or generation did not alone find disciples among medical men. Biologists and others believed that at least the more minute organisms could be generated or developed *de novo*, when circumstances were favourable; and only a few months ago a lively discussion agitated the world of science as to whether microscopical germs might not be created in particular fluids, under certain special conditions. This was probably the last occasion on which we shall hear of spontaneous generation; for the admirably-conceived and well-executed experiments of Pasteur, but more especially those of our own countryman, Tyndall, appear to have set the question at rest for the present, if not for ever. But it was not until the adoption of the experimental method in biological research, by men of genius and unwearied industry, that the question of so-called "spontaneous

generation" obtained this definite solution, and the doctrinal notions generally held up to the other day only, received so severe a blow that they may now be considered as dispelled and defunct. These notions were certainly losing their hold somewhat before the publication of the convincing demonstrations of the experimenters I have just alluded to; and it is possible that the increased intelligence developed by the rapid progress of scientific research during the first half of this century did much to bring about more reasonable opinions with regard to the generation of organised bodies. From the very earliest times the most absurd ideas prevailed with regard to the spontaneous creation of creatures—real or unreal—and of the largest dimensions and most complex organisation; and even so late as the time of Spallanzani, the notion of spontaneous generation was so fully and unreservedly believed in, that it was popularly accepted that creatures so large and perfect as mice could be developed *de novo*.

But if the doctrine of spontaneous generation was in some respects absurd in the extreme, yet it produced no very harmful results in a general way; and it was only when it asserted its sway in medicine that baneful effects were observed. The desolating scourges of mankind that swept over wide continents and carried off countless myriads of people, were ascribed, in the earlier ages of the world, to an irate deity or the vengeance of wrathful gods, whose murderous chastisements could only be averted by sacrifices, charms, and incantations. In more modern times, when superstition had less influence on the mind, these pestilences were sought for in, or attributed by the more learned to, cosmical or terrestrial phenomena over which man had no control. The doctrine of contagion was, it may be said, only very recently adopted with regard to the most markedly transmissible of these disorders, and it was far from being universally entertained by medical men or veterinarians; while even among those who most strongly favour it, it never appears to have been doubted that these diseases could be spontaneously generated through certain influences connected with atmospheric or telluric phenomena. But it must be confessed that, among veterinary surgeons in this country, up to a very late date, the doctrine of contagion was not received with much favour, if it was at all understood. Certain it is, that when we were invaded by two of the most serious of all the animal plagues, some forty years ago, their transmissibility from diseased to healthy animals does not appear to have been suspected. They were due to "something in the air," and as the action of this "something" could not be controlled or its effects averted, these desolating pestilences were freely allowed to extend themselves everywhere over the land, and to be carried to our colonies, where at least one of them continues to ravage and destroy—a startling evidence of the results of inacquaintance with their early history, and lack of perception on the part of those who then ruled in veterinary medicine in Britain. This lack of knowledge, and stern belief in the "something in the air" theory of disease, has been a source of terrible loss to the country during the period mentioned, and has done more to bring our agriculture to its present low ebb than almost any other cause which can be named. The ever-memorable invasion of Cattle Plague in 1865 affords a painful instance of the "something in the air," and the "spontaneous generation" fallacy; when the public was misled, and the necessary measures neglected, in order that these hobbies might be ridden. The lesson was a most severe, but it was a useful one; and it did more to abolish these fallacies, so far as they had reference to animal diseases of the contagious class, than anything else that could have happened. Nay, even human medicine reaped much benefit from the scourge; as it was most strikingly demonstrated how diseases, which owe their existence to their contagious properties only, may be checked or completely suppressed.

Thus did public hygiene or state medicine receive one of its most potent arguments for ample recognition by the country, and the advantages of its application to the preservation of the health of mankind and animals obtain its strongest proof.

I have alluded to the experimental method of investigation, as that which has done medicine most service in abolishing the spontaneous generation notion of contagious diseases; and it must be admitted that we owe it to the microscope to having provided us with the clearest and most satisfactory solution of the problem as to the cause of these disorders; while the same instrument has lent invaluable aid in settling the spontaneous development question.

To the microscope we are indebted for the establishment of the doctrine of animate contagia, and for all the knowledge we possess as to the physical characteristics of these contagia. It is true that, some centuries ago, the more serious maladies of mankind were supposed to be due to minute organisms, which invaded the body, and produced the disturbances that marked the course of the disorders. Thus, Kircher (*Scrutinium Physico Medicum c. Pestis dicitur.* Rome, 1658), so long since as 1658, asserted that animalcules were the cause of malignant and pestilential fevers, which differed in essence and symptoms according to the nature and venoms of these creatures. The celebrated Dr. Mead (*Exposito Mechanica Venenorum*, 1749,) entertained similar views with regard to the Plague; and in 1730, Dr. Thomas Fuller, who has given us the first exact description we possess of Sheep-pox in this country, is very explicit. He writes: "My settled opinion is, that in regard every effect is necessarily such as its cause; it must needs be that every sort of venomous fever is produced by its proper and peculiar species of virus. And that the manner and symptoms of every such fever is not so much from the particular constitution of the sick, as from the different nature and genus of their specific venom which caused them. And I conceive that venemous febrile matters differ not in degree of intenseness only, but in essence and *toto genere* also; and that venomous fevers are for the most part contagious." (*Exanthematologia, or an Account of Eruptive Fevers, especially the Measles and Small-pox.* London, 1730.) Dr. Fuller also speaks of the contagia as particulate, or consisting of particles.

But it must be confessed that the notions regarding contagious diseases were hazy in the extreme, and it was not until the experimental method and the microscope had been introduced into pathological research that our knowledge of them began to be exact and comprehensive. The idea that the active principles of the contagia were vital, and that each possessed individual characters, was until then mere speculation.

I think the time has now arrived when the knowledge thus acquired should be utilised in formulating something like fixed principles with regard to these diseases, and deciding once and for all whether contagious disorders can or cannot be spontaneously generated. From almost every-day evidence it would seem that no definite opinions are held on this point; and in our own profession the preponderating tendency is, perhaps, to consider them as capable of being originated, at least in some instances, without any pre-existing contagium. This appears to be the case, at any rate, with two diseases—Rabies and Glanders. I have myself held this opinion, and am ready and willing to confess that, whenever I am confronted with convincing evidence of error, I am not ashamed to admit that I entertained erroneous ideas. We may be wise at twenty, but we should be wiser at forty. For certain other maladies of an exotic kind—as Rinderpest, Foot-and-mouth Disease, Sheep-pox, and Zymotic Pleuro-pneumonia—I have never admitted their possible spontaneous development, at least in this country; but with regard to Glanders and Rabies, I have, until not long ago, remained in

doubt. I am now entirely of opinion that no contagious disease can be so generated, and the reasons for arriving at this opinion I will give.

By the term contagious or infectious, I do not refer to those disorders solely due to animal or vegetable parasites, of which Scabies and Tinea may be taken as examples; it is generally accepted, I believe, that the acari and epiphytes producing these diseases cannot be developed, except from pre-existing organisms of the same kind. By the above terms I mean maladies which are transmitted from a sick animal to a healthy one by mutual touch or contact, or by particles of matter from the former, suspended in the atmosphere or carried by various media—particles which find admission into the system of the exposed animal by one channel or another, and constitute what is designated the "contagium" or "virus" of these diseases. What differentiates this poison from other animal poisons, such as that of reptiles or septicæmia, is that the minutest quantity will, when introduced into the body, produce its effects as certainly as the largest, owing to its peculiar property of indefinite multiplication; and give rise to as marked effects in the thousandth generation as in the first.

With many of the diseases—according to some authorities, with all—certain organisms have been discovered in the blood and other fluids, which are looked upon as the special agents in producing the characteristic effects that mark each disease. These organisms are the so-called "germs"; and the theory which now generally finds acceptance among the more advanced pathologists with regard to the production of these maladies, is named the "germ theory." This theory is certainly the most satisfactory which has ever been proposed to account for the production, course, and extension of these diseases; and it is supported by all the facts that present themselves in our study of these affections. The particles or germs of a contagium may well and aptly be compared to the germs in the seeds of plants. No plant can be produced without seed, and the germ in this seed must be endowed with vitality—it must be living. The seed requires a congenial or suitable soil, and other accessory conditions, for the growth of its germ; but when buried in the soil, and placed in the most favourable conditions for development, it does not at once become a plant. There is a definite latent or germinative period in the evolution of every plant, during which nothing is seen; but, nevertheless, germination is progressing; then comes the eruptive period, when, certain changes having been accomplished, the young plant becomes visible; then arrives the stage of blossoming and seed production—the seeds ripen, and every one of them can again, under suitable conditions, reproduce the parent plant and multitudes of germinal seeds. Every seed becomes converted into a plant exactly like that which produced it: the seed of a carrot will not produce a turnip, neither will an oat develop a thistle.

> "Like genders like, potatoes 'tatoes breed,
> Uncostly cabbage springs from cabbage-seed."

The seed of each plant has its own special phases of evolution, which are as peculiar to its physical or other attributes; and man can effect but little in modifying these.

Zymotic or contagious diseases, such as those of which I am now speaking, bear the strongest analogy to plants in this respect. Each, I assert, has its own special germ, which can only develop its particular disorder—never any other. This germ can no more be spontaneously developed than can the seed or the plant. It has a life, an individuality of its own, which nothing can transmute or alter. As the carrot-seed will not grow into a turnip, nor the oat produce a thistle, so neither will the germ of Cattle-plague develop Foot-and-mouth Disease, or that of Rabies give rise to

Variola. The germs of each zymotic malady are as distinct and independent as different kinds of plants or different species of animals; and these germs can be no more transmuted into each other than can the plants or animals. The organism of a susceptible animal receives the germs of a particular disease, as the ground receives the seed—there is a characteristic period of latency or germination, during which the most careful observer can detect no change; then comes the eruptive period, with the manifestation and definite course of the symptoms, which characterise the malady as distinctly as the leaves, the flowers, etc., characterise the plant, and when the multiplication of new germs has reached its maximum stage, and these can effect any number of other susceptible creatures into which they may be sown. Another feature in these zymotic diseases gives them an additional resemblance to the growth of seeds. One attack protects against another for perhaps years, if not for life—the germs will no longer grow in that soil, and the organism is endowed with immunity. We know that the rotation of crops is an absolute essential in agriculture; the soil will not for any length of time grow the same kind of plants, and some exhaust it sooner than others.

The analogy between the seeds of plants and the supposed germs of contagious diseases, is still further exemplified in their diffusion. Traffic between different parts of the world has led, as is well known, to the accidental diffusion of plants, some of which are a source of great annoyance or injury to the countries into which they have been introduced. Very many illustrations of this kind might be given, but I shall content myself with offering you only one. Some years ago, the achenes of the obnoxious *Xanthium spinosum* were introduced into South Africa, through the medium of imported Merino sheep, to whose wool they clung. These achenes or seed-pods became the source of at first a few plants which were not recognised as injurious; but these soon became so multiplied throughout the sheep-walks of Cape Colony, and did so much damage to the wool-production, through the spines of the weed tearing out the growing wool, that special legal enactments were made for its extirpation: the rigid enforcement of penalties alone has kept it from becoming a sweeping curse to the wool-producers. In the Orange River territory this imported weed has nearly destroyed wool-production. In 1854, Zymotic Pleuro-pneumonia was carried into the Cape of Good Hope by diseased cattle. The malady was not recognised—at any rate, no measures were devised to eradicate it, and its germs were speedily diffused. Since then it has ravaged our African colonies, and it has been extended into Central Africa, where it is as much dreaded by the uncivilised tribes who possess cattle as it is now by ourselves. In the course of time it will have invaded the whole of the African continent, simply because no sufficient measures have been adopted for its suppression. If the achenes of the *Xanthium spinosum* have proved a curse to the wool-producers of South Africa, so have the germs of Pleuro-pneumonia to the cattle-owners.

If I am justified in asserting that zymotic diseases are due to the action of specific germs, possessed of vitality and special characters as absolute and marked as those whch produce plants or animals—and every fact with which I am at present acquainted supports this assertion—then am I as justified in asserting, from all the evidence before me, that these germs cannot be spontaneously generated. Life only springs from preceding life—no combination of influences or conditions known to man will produce a plant or animal without a seed or germ; the causes so often invoked as operating in the production of specific diseases are utterly insufficient, as they can no more develop them without the pre-existing germ, than man can be developed without pre-existing man. Zymotic disorders never spring up *de novo*. We might as well admit the appearance of a plant where no seed had been sown,

as the advent of one of these disorders without a previous germ. I quite agree with Sir Thomas Watson, when he says that "a disease is supposed to be generated *de novo* when the evidence is negative only, and consists solely in our inability to trace with the eye the continuity of a chain whose connecting links are known to be invisible. To conclude from this that no chain exists, is palpably absurd. There are a thousand unsuspected ways in which the invisible contagium of these maladies may be conveyed."

Organic matter endowed with vitality, and composed of living particles, cannot be created by man, nor do we know of their independent creation. The chemist or mineralogist may form crystals of organic or inorganic matter, but no one can create a seed, a blood-corpuscle, or a secreting cell.

In adopting the argument I have here brought forward, the question may be asked, and has been asked, How did these diseases first originate, if they cannot be developed independently now? Well, that question is no doubt pertinent enough; but it is like many more of a similar kind—more easily asked than answered. The answer will be forthcoming when we know how man, animals, and plants originated. All matter has had an unknown origin, and so have plants, animals, and specific diseases. To assert that the latter may be spontaneously developed, merely because we cannot explain how they first originated, is as absurd as to maintain that a tree or an animal may appear without the pre-existence of parent trees or animals. Assuming that these maladies are solely due to the presence of specific germs, and that these germs must exist in order to produce them, then we need not bewilder ourselves in inquiring into the how and wherefore of their first production, any more than we need do into the origin of the first man, first dog, or first elephant. These things are beyond our knowledge, and we can only deal with matters as they present themselves to us.

Rinderpest is not a European disease, and I am not aware that any but writers in the public papers in 1865-66 ever said it could be developed here. When little was known regarding it, we were informed many years ago that it was developed in Southern Russia. We now know that it is an Asiatic disease, and that so far from being spontaneously generated, it is always traced to a contagious source. The Russian veterinarians have tracked it into Central Asia, but they have never been able to discover where it was generated. Its existence depends solely upon its contagious properties, and the violation of every hygienic law will not produce it. When its contagium is destroyed in a country, it will not again appear unless a fresh supply is introduced from an infectious centre. This is one of the diseases which can be extinguished, just as noxious plants or animals can be exterminated.

Contagious Pleuro-pneumonia and Foot-and-mouth disease belong to the same category. They have been extended over the world solely through their contagious properties, and they cannot be spontaneously generated anywhere. We can trace their existence and diffusion for more than a century, and their ravages and extension have been simply owing to the fact that they were not looked upon as contagious, but due to "something in the air." For nearly thirty years they were allowed to scourge this country unchecked, and we permitted our colonies to be invaded by them, because we could not recognise their being purely contagious disorders. Within the last few years this recognition has taken place; measures have been adopted which should have been taken thirty years ago, and now these two maladies are almost unknown in the land. Sheep-pox is never seen here, except as an introduced disease; and it could be easily extinguished on the Continent, if proper measures of occision and isolation were enforced. In Denmark it is unknown, because diseased sheep are never allowed to enter.

Rabies is a malady about which doubts might be entertained as to its being always due to its contagious properties, but I am now convinced that

its spread, and indeed its existence, depends solely upon its contagium. There are several parts of the world in which it has never been seen, merely because it has not been carried to them; and the dogs in them live, and are subjected to exactly the same external influences, as in regions where this terrifying and fatal disorder is frequent. The irregular, and oftentimes extremely protracted, period of latency, the long distances travelled by rabid dogs, the readiness with which bites may be inflicted by them on healthy dogs without the wounds being detected, and some other circumstances attending the evolution of this disease—all conspire to render its origin sometimes obscure, and make it appear as if it could arise spontaneously. I feel certain that Rabies is a contagious malady which could be stamped out by the adoption and enforcement of special sanitary measures.

Tuberculosis is another cruel disorder which the evidence of every day goes to prove is contagious and infectious, and that its existence and spread depend upon its infective principle. It is becoming more and more prevalent, simply because its infectiveness is not recognised; and it is all the more serious for the reason that it may be communicated from the bovine species to man and other creatures. This disease could also be extinguished by proper measures.

There are several other contagious maladies belonging to this category, but I will omit noticing them, and come to one which is at present very prevalent in London, and indeed throughout the country, and is causing much loss and inconvenience. This is Glanders—a notoriously contagious disease of solipeds, transmissible to mankind and several other species of animals, and nearly always fatal. While many veterinarians would be disposed to admit the non-spontaneity of some of the other contagious maladies, I feel inclined to believe that there are indeed but few who would grant that this disease also belongs to the specific class which cannot be developed through aught save its own special contagium. In our text-books and in lectures, in our consultations and discussions, it is set down as a malady capable of spontaneous origin, though it is also admitted that it can be extended by contagion. The causes which are supposed to produce it are said to arise—I quote from a new edition of one of our veterinary text-books—from debilitating influences, "such as old age, bad food, overwork, exhausting diseases, and general bad management; from specific miasmatic or animal poisons, such as those generated in localities where large numbers of horses are congregated together, in camps, barracks, large cab or other establishments, even where the stables are well ventilated, lighted, drained, and the animals well attended to in every way, but more particularly where the stables are ill-ventilated, badly-drained, dark, and foul. Horses, when crowded on board ship, are very liable to this affection, and the Arabs, in transporting their horses from Arabia to India, always choose that part of the year when the passage is shortest, lest the accidents incident to a long voyage might oblige the hatches to be closed, and want of ventilation promote the development of Glanders." The writer continues: "I have also observed that Glanders is developed in new stables, where the walls are not thoroughly dry—where, in fact, in common language, they are said 'to sweat'; and finally, Glanders occurs as a sequence to exhausting diseases, more especially if the animal be old or of a bad constitution. These causes, and a generally vitiated condition of the animal system, may be said to produce Glanders—(1) By causing the introduction into the blood of vitiated or decomposing material generated in the external surroundings of the animal; (2) by inducing the formation of degenerated material within the animal system; (3) by preventing the excretion of the degraded constituents normally generated within it by natural tissue-changes, or excessively formed within it by various disordered functions, or introduced into it from

without. The most common forerunner of Glanders, more particularly of that form of it known as Farcy, is the disease commonly called *Diabetes insipidus*, or Polyuria. It cannot be said that in Diabetes there is any obstruction to the excretion of degraded tissue; indeed the reverse is the case, excretion of urine being enormously increased. If we look deeper into the matter, we shall, however, see the Polyuria is but are sult of rapid tissue-changes, rapid emaciation of the body being a most prominent symptom, with debility arising from degradation of tissue, and from the presence of the degraded materials within the circulatory fluid. So apparent is this condition, that it has been truly said that Diabetes, when arising from no cognisable cause, is often indicative of a general breaking-up of the constitution." (*To be continued.*)

ONTARIO VETERINARY COLLEGE, CANADA.

THE closing exercises at this institution took place recently in the large museum of the College. A large number of students presented themselves for examination. The great proportion of successful candidates speaks well for the thoroughness and efficiency of the instruction given. The Board of Examiners was composed of the following gentlemen: Messrs. Coleman, Cæsar, Duncan, Wilson, Sweetapple, Elliot, Cowan, McNaught, and Dr. Thorburn, who, after a most rigid examination, awarded diplomas to the following gentlemen:—

DIPLOMAS.

S. Brenton, Belleville; A. Bell, Sharpton; W. Burt, Simcoe; J. Burnett, London; G. Dunphy, Salford; G. Coulter, Islington; P. Z. Colsson, Mobile, Alabama, U.S.; J. B. Fretz, Pennsylvania, U.S.; F. L. Groff, Ohio, U.S.; H. G. Hawley, Brantford; Thos. Meredith, Jamestown, N.Y.; J. Loughman, Montreal; B. B. Page, Illinois, U.S.; P. Stevenson, Aurora; R. Riddle, Cobourg; D. H. McFadden, Allanford; U. Springer, Waterloo; C. P. Smith, St. Mary's; J. Taylor, St. Catharine's; J. P. Whitehead, Delaware; B. Way, Belleville; L. A. Severcool, Ohio, U.S.; P. Shalliol, Ohio, U.S.; E. P. Westell, Arkona; D. Young, London.

Primary—G. Bell, Westbrook; G. Howell, Carlow; J. Donelly, Palmerston.

PRIZE AND HONOUR LIST.

Seniors.

Pathology—Silver medal, G. W. Dunphy. Honours, W. Burt, H. G. Hawley, J. Loughman, B. B. Page, U. Springer, C. P. Smith, P. Stevenson, B. Way, J. Whitehead.

Chemistry—First prize, C. P. Smith; second, U. Springer; third, J. Whitehead. Honours, G. Coulter, B. Way.

Entozoa—First prize, G. W. Dunphy. Honours, C. P. Smith, U. Springer, J. Taylor, B. Way, J. Whitehead.

Dissection—Prize, P. Z. Colsson.

Anatomy—Silver medal, J. Whitehead. Honours, S. Brenton, W. Burt, P. Z. Colsson, G. Dunphy, J. Loughman, C. P. Smith, U. Springer, P. Stevenson, B. Way.

Physiology—First prize, C. P. Smith; second, G. Coulter, G. Dunphy, J. Whitehead. Honours, B. B. Page, R. Riddle, P. Shalliol, E. P. Westell.

Materia Medica—First prize, C. P. Smith, B. Way, equal. Honours, G. Dunphy, B. B. Page, P. Stevenson, U. Springer, D. Young.

Gold medal for the best general examination—C. P. Smith, St. Mary's.

Honours, W. Burt, G. Dunphy, B. B. Page, U. Springer, P. Stevenson, B. Way, J. Whitehead.

Juniors.

Physiology—First prize, J. A. Dell ; second, W. E. Langford.

Pathology—First prize, J. S. Butter ; second, J. A. Dell. Honours, D. L. Devone, S. L. Honiford, — Logan, W. E. Langford, S. Maguire.

Chemistry—First prize, J. A. Dell. Honours, W. E. Langford, A. Maguire.

Anatomy—Silver Medal, J. A. Dell. Honours, J. S. Butter, A. Logan, A. Maguire, — Shaw.

A numerous company assembled to witness the presentation of the above prizes, which took place in the museum on Friday morning. At the conclusion of the exercises, Professor Buckland, on behalf of the Board of Agriculture, stated that in his department, breeding and management of stock, the following prizes were awarded—G. W. Dunphy, books to the value of 20 dols. ; J. W. Litehead, 15 dols. ; B. Way, 10 dols. He also said that he had the authority of the Commissioner of Agriculture for saying that that gentleman sincerely regretted his unavoidable absence. He expressed the full confidence that, great as had been the success of the College in the past, it would be greater in the future.

NORTH OF IRELAND VETERINARY MEDICAL SOCIETY.

A MEETING of the above Society was held at Belfast, on April 22nd, 1880, J. P. Dunlop, Esq., M.R.C.V.S., in the chair. Present—Messrs. Doris, Brown, Drummond, W. J. Johnson, Kernshaw, Giffen, Simcocks, Dunlop, and the Secretary. Visitors—Professor Williams, J. Greaves, M.R.C.V.S., W. S. Core, M.D., H. Torrens, M.D., H. B. Murray, Surgeon, and K. J. Urquhart, Veterinary Student. A large number of letters of apology were read.

Mr. Dunlop vacated the chair in favour of the incoming President for the current year, Mr. J. DORIS, Cookstown, who read his inaugural address, dealing with several of the leading questions now on the *tapis*. He afterwards exhibited an unique specimen of schirrus cord. An interesting discussion followed, in which Professor Williams, Messrs. Chambers, Simcocks, Dunlop, Greaves, and Kidney took part.

Mr. J. B. DUNLOP related a most interesting case of puncturing the bladder *per rectum !*

Professor WILLIAMS, Mr. GREAVES and others criticised the case, the general opinion being very favourable to the successful operation as performed by Mr. Dunlop.

Professor WILLIAMS next addressed the meeting on the "Practical Treatment of Disease," etc. He exhibited "Volkmann's" instrument, which he specially advocated as being efficacious in the surgical treatment of Splint. He also exhibited Chassaiognal's drainage tube, and especially recommended its use in obstinate cases of Quittor, etc. In the treatment of wounds he prefers, as a deodorizer, carbolised water to carbolised oil. He next touched on the subject of Constipation, expressing his opinion that the cure of Constipation by forcible means was often calculated to defeat its own ends. Aloes, for example, being often eliminated from the system by the kidneys. He believed in the non-purgative treatment in Enteritis. To secure a beneficial result by the administration of opium it must be exhibited in large doses, say—pulv. opii. ʒj or tinct. opii. ʒviij, or in injection of morphia grs. viij. He referred to Tetanus as being peculiar to certain districts, and drew attention to the different methods of treatment now adopted —nitrite of amyll, Calabar bean, subcutaneous injection of morphia—and

drew special attention to the good results which he had seen follow the administration of bromide of potassium.

Dr. CORE, Dr. TORRENS, Messrs. GREAVES, SIMCOCKS, DUNLOP, and the SECRETARY having spoken to the address by Professor Williams,

Mr. GREAVES, F.R.C.V.S., read a paper on "Veterinary Medical Associations," drawing special attention to the "penal clause," "compulsory apprenticeship," "preliminary examination in hands of council," and "examiners to be veterinary surgeons only."

An animated discussion followed the reading by Mr. Greaves of his highly interesting paper, when

It was proposed by Mr. KIDNEY, seconded by Mr. BRADSHAW, supported by Messrs. SIMCOCKS and DUNLOP, and carried unanimously, that the North of Ireland Veterinary Medical Society do petition the Council of the Royal College of Veterinary Surgeons in favour of the "penal clause."

Votes of thanks having been accorded to the out-going office-bearers, to Professor Williams, Mr. Greaves, and the other visitors, a most successful meeting was brought to a close, when a pleasant time in fraternal gossip was enjoyed after dinner.

GEO. KIDNEY, *Hon. Sec.*

The following are Mr. Greave's remarks on Veterinary Medical Associations :—

In rising to make a few observations on Veterinary Medical Associations, although to most of you I am an entire stranger personally, I am not really so ; since it will be remembered I had the honour to take part in the inauguration of another, in fact the only other, Veterinary Medical Association in Ireland, in 1869. Holding, as I do, strong opinions of the great value and importance of these associations ; having taken a deep interest and an active part in them from the first, viz., over twenty years ; being either a member or an honorary associate of every association in England and in Scotland, I may, therefore, he permitted to feel that I can speak of them with some authority ; and at my time of life, having been actively engaged nearly forty-six years in my profession, much of this time I have occupied (as President of the Royal College of Veterinary Surgeons or member of Council) a leading position. Acting a part which has in some degree given a tone and direction to my profession, I hope and ask that I may be excused if I assume to myself a standpoint which will enable me, without egotism, to offer some advice to my professional brethren generally, and to this association in particular. In the term of life I have indicated, I have in all my writings, addresses, and votes, endeavoured to ventilate and keep prominently to the front the various subjects and reforms which the more advanced thinkers have considered were necessary to the well-being of our common profession. We have carried during the last few years to a successful issue ten important measures which I have enumerated in one of my papers. We have four other important measures, as I have also shown, and which I am anxious to see carried to a successful issue before I die. They are, 1st, "The Penal Clause ;" 2nd, "The Apprenticeship clause ;" 3rd, "The Preliminary examination of the student when he enters college in the hands of the Council ;" 4th, "The Court of Examiners composed of Veterinary Surgeons only ;" hope is strong within me that it will be done, but in respect to what has been done allow me to say we are much indebted to our late President Sir Frederic Fitzwygram, and to the various Veterinary Medical Associations in developing public opinion, and bringing a sort of pressure from without upon the Council, and we shall look to you to lend us your powerful aid in future. At this very moment they are exercising this power (and let me tell you here, they are a power, and a great support to those members of council who urge

on popular measures), by memorialising the council to at once apply to Parliament to obtain an Act of Parliament to secure for the profession the penal clause. At the last meeting of council, a fortnight ago, Mr. Fleming moved that we apply to Parliament for this act, Mr. Whittle seconded it, and I supported it. A committee was appointed to draw out a form, and a rough draft will be laid before the Council at our next meeting in July, when it will be discussed. I feel little doubt there will be severe opposition to it, and it will materially strengthen the hands of those members who are in favour of progress, if this and every other association will petition the Council to apply, and if possible obtain, for our profession this just and long-desired measure. The Lancashire Veterinary Medical Association at their meeting last week took action; they unanimously decided to memorialise the Council to this effect, and offered to contribute their quota of the expense; the Yorkshire Association has done the same. You will perceive by this that you can serve your profession in more ways than one; but this is when an influential body like you decide resolutely to act your part. I wish here to remind you that there are many ways in which these associations can render important services to the profession generally, as well as to each member individually. They create a better opinion and feeling within us towards each other; they tend to beget and develop a more correct knowledge of each other's disposition and intellectual *status;* this fosters a better acquaintance, a greater confidence and friendship. They have a great power in restraining within us any desire for detraction, or a feeling of animosity arising from envy or jealousy; they often bring about a better understanding between competitors, changing enmities for fast friendships. They give opportunities to correct false and unjust impressions or opinions of each other's character, and which may have rankled in the breast and tended to embitter each other's life; but besides all this, we improve one another, and become better practitioners and more useful members of Society; this must follow as the day the night when we frequently meet, discuss and interchange ideas on scientific and practical subjects in a frank and proper spirit. I have never attended a single meeting without deriving some information which has benefited me and which I could take home with me, and apply it to some useful purpose; and in this way they have laid me under a deep debt of gratitude to them. In conclusion, let me beg of you most earnestly that you also remember this, that everything depends upon ourselves individually to make our profession what we wish it to be. Let us never show a carelessness, an indifference in the performance of our duties; let us be diligent and industrious, cultivate kindly, pleasant, and agreeable manners, be gentlemanly and honourable to each other, and in all we do, avoid above all things making charges out of all proportion to services rendered. And then I say it must follow as the day the night, provided always that we possess a thorough practical knowledge of our business, that we shall be able to make and sustain a character and position for ourselves that will be everything we can desire.

MONTREAL VETERINARY COLLEGE.

THE regular fortnightly meeting of the Montreal Veterinary Medical Association was held on March 20th, the Vice-President, C. J. Alloway, V.S., in the chair. Mr. Donald Campbell regretted that, owing to ill-health, he had been unable to prepare his promised paper, but hoped to do so at some future meeting. Mr. M. S. Brown then described a very interesting and unusual monstrosity of a calf he had recently examined. Mr. E. J. Carter was next called upon to read his paper on Rabies, which proved very interesting and instructive. He first glanced at the history of Rabies, showing that it has been known from the earliest times; next the distribution of it occupied his attention. It

occurs in nearly all parts of the world, being particularly prevalent in Western Europe. Recently it had almost exterminated the Esquimaux dogs of Greenland. Australia, New Zealand, and Tasmania are among the few fortunate locations where it is unknown. Its nature, and the cause which produces it, were then fully discussed. Its nature is not fully understood, but that it is a disease of the nervous system there is little doubt. Many causes have been assigned to it, such as hot weather, change of climate from a cold to a hot, etc.; but statistics prove that it occurs oftener in the winter than summer, and that native dogs are as liable to it as those imported. The symptoms of the disease were graphically described, and the speaker impressed upon his hearers the necessity of being able to distinguish between it and an attack of Epilepsy. Many dogs, especially pet dogs fed upon meat, were subject to epileptic fits, and sometimes excited in the minds of their owners the fear that they were mad. He had no doubt many valuable dogs had been destroyed from such a mistake. It was commonly supposed that mad dogs were afraid of water. Such is not the case. Mad dogs are often very thirsty and will attempt to drink, but owing to paralysis of the muscles of the throat are unable to swallow. Cases are also on record of mad dogs swimming across streams in order to attack men or animals on the other side. Fear of water is sometimes, but not always, a symptom of the disease in man, and the name *Hydrophobia* should, therefore, be discarded as a misnomer.

A lively discussion followed, and the chairman gave an account of some interesting cases which had come under his notice, not of Rabies, which he had never seen, but of the effects produced on the minds of nervous persons when bitten by a dog they supposed to be mad. The disease, he was happy to say, was almost entirely unknown in Montreal and Canada generally, although cases of simply Epilepsy sometimes gave rise to sensational rumours.

A vote of thanks to the essayists was passed, and the meeting adjourned.

On March 30th, the prizes and diplomas were presented to the students of this institution. The Hon. Mr. Beaubien acted as chairman, and in brief terms addressed the students, congratulating them on the success which they had attained in their studies. He called their attention to the fact that those who passed a successful course in the Montreal Veterinary College and received their diplomas were looked upon all over the world, and more especially in Canada and the United States, as veterinary surgeons who understood and were well grounded in the work of their profession. The College had become so useful that not only private individuals, but he was glad to say the Governments of the country, were recognising the good, faithful, and hard work which Dr. McEachran was performing. He wished the College greater prosperity in the future, and trusted next year the students would be double the number. He had now much pleasure in presenting the prizes to the several successful competitors. The following are the names of the winners, and also the graduating class of 1880 :—

THIRD SESSION.

Best General Examination—1st prize, silver medal, Mr. William McEachran, Montreal; 2nd prize, A. P. Hinkley, Buffalo, N.Y.
Anatomy—1st prize, Mr. Wm. McEachran, Montreal.
Materia Medica—1st prize, Mr. Peter Cummins, Quebec.

SECOND SESSION.

General Pathology—1st prize, Charles H. Ormond, Milwaukee.
Anatomy—1st prize, Mr. Charles H. Ormond, Milwaukee.
Materia Medica—1st prize, Mr. Fred. Torrance.

FIRST SESSION.

Anatomy—1st prize, Mr. Walter Wardel.

Best Practical Examination (medalist excluded)—1st prize, a complete case of instruments, presented by Mr. David Morrice. Won by William Jakeman, Boston.

SENIOR CLASS.

French—1st prize, Joseph Page, Lotbiniere.

GRADUATES.

Wm. McEachran, Montreal; Wm. Jakeman, Boston; N. P. Hinkley, Buffalo; A. W. Harris, Ottawa; Mathias S. Brown, Montreal; Peter Cummins, Quebec; Joseph Page, Lotbiniere.

THE NATIONAL VETERINARY BENEVOLENT AND MUTUAL DEFENCE SOCIETY.

A GENERAL meeting of the members of the above society was held in the Medical Institute, Liverpool, on Friday 14th May. Present the President Mr. P. Taylor, Mr. Greaves, Mr. Alex. L. Gibson, Mr. Reynolds, Mr. Storrar, Mr. W. A. Taylor, Mr. R. C. Edwards, Mr. Whittle, Mr. E. Faulkner, and the Secretary. From the reports of the Secretary and Treasurer it appeared that the society now consists of 200 members, and accumulated funds to upwards of £1500, clear of all liabilities.

Since its formation the society has pecuniarly and otherwise assisted in a great number of cases, and the necessity for such a society abundantly proved.

It was especially urged on the members the necessity of their paying in their subscriptions as early as possible, and thus saving the time of the officers, who are all honorary.

Votes of thanks having been passed to the officers for their past services the following gentlemen were appointed trustees, and instructed as to the investment of the funds. Mr. P. Taylor, R. S. Reynolds, Mr. Greaves and Mr. Whittle.

The other officers were unanimously re-elected. President, Mr. P. Taylor. Vice-President, Mr. R. S. Reynolds. Treasurer, Mr. T. Greaves. Hon Secretary, George Morgan. Council, T. Taylor, W. Woods, W. Whittle, J. Freeman, W. Broughton, J. S. Carter, J. Storrar, F. Blakeway, Professor Williams, Professor Walley, J. Lawson, A. L. Gibson.

Considerable discussion arose as to the correct interpretation of Rule VIII., referring to the powers of the investigation committee. An amendment of the rule was proposed by Mr. Greaves, in advocating which he made the following remarks :—"We, your officers, have an authority from you to seek an interview with the defendent, and hear from him the particulars of the case. This has always been done, and we have formed our opinion. In some cases an opportunity has offered itself for us to hear the other side also, and we then find that we had formed an increased opinion of the case. I therefore maintain that we have an absolute right to receive from you an authority to seek an interview with the plaintiff, as well as defendant, and hear both sides in every case. We can then report the case fairly before the Council, and the Council will be in a position to judge with satisfaction to itself and in justice to its member, and thus be better able to protect the interests and honour of our society. In one case in which your officers acted thus, they saved the funds of the society £40 at least; in another case

in which your officers did not act, although they had a strong inclination to do so, they would have saved the societies fund £90 or more, I therefore maintain that we ought to have a rule. 'That in every case the officers shall have the power to seek an interview with the plaintiff, as well as with the defendent, with the view of gaining a full knowledge of the case, and if they see it to be to the interest of the defendent and the society, to endeavour to arrange terms of settlement subject to the approval of the Council.' I am emboldened the more to argue this, in consequence of the fact that in every case in which we have had an interview with the plaintiffs, we have found them open to reason, and desirous to settle the case on its merrits amicably. I am fully aware that a solicitor would not advise this course ; he would say DO not interfere, leave it to me, let it go on to trial, you are sure to win. The other lawyer is advancing precesely the same argument ; but we say it is by far the best for these cases to be fairly considered and decided by the common-sense of a council of experienced veterinary surgeons."

After an expression of opinion by the various gentlemen present, it was ultimately carried to be read along with Rule VIII.

A vote of thanks having been passed to the President for his services in the chair, the meeting terminated.

GEORGE MORGAN,
Hon. Sec.

NEW MEMBERS OF THE PROFESSION.

AT the meetings of the Scottish section of the Court of Examiners of the Royal College of Veterinary Surgeons, held in Glasgow, on April 13th, the following students from the Glasgow Veterinary College were admitted members of the profession :—

Mr. Allan Pollock Blue ...	... Eastfield, Mearns, Renfrewshire.
„ Thos. Cunningham Bowie	... Kilbarchan, Renfrewshire.
„ Thos. Anderson Douglas	... Fenwick, Ayrshire.
„ Richard Hughes ...	... Llanarmoor, South Wales.
„ Wm. Jas. Gray Johnson	... Fountainville, Belfast.
„ Alexander Milligan ...	... Corwall, Wigtonshire.
„ Jeremiah McCarthy ...	... Leap, Co. Cork.
„ George Hill Pollock ...	... Bridgeton, Glasgow.
„ William Stevenson ...	... Howwood, Renfrewshire.
„ James Wyper	... Vincent Street, Glasgow.

Messrs. Blue and Hughes passed with Great Credit.

The following students passed their Second Examination on April 19th and 20th :—

Mr. Michael Yeats Lees.
„ Alexander Macadam.
Frederick Foster.
„ James Arthur Gosling.
„ Robert Glass.
„ William Watt.
„ Henry Rogers.
„ Richard Ebbett.
„ Robert Roberts.
„ Hugh Bradley.
Mr. John Freeman.
„ Jas. Morton Howat.
„ William Pettigrew.
„ John Blackley.
„ John Smith.
„ John Taylor.
„ Robert Black.
„ James Nisbet.
„ Thomas Maclay.
„ Alexander Crighton.

Mr. John Freeman passed with Very Great Credit, and Messrs. Macadam, Gosling, Glass, Watt, Rogers, Bradley, and Taylor passed with Great Credit.

At the several meetings of the Court of Examiners, held in Edinburgh, on April 14th and 15th, the following students were admitted members of the Royal College of Veterinary Surgeons :—

Edinburgh New Veterinary College.

Mr.	James Wood Ingram ...	... Manchester.
„	Alfred Moritz Michaelis	... Old Trafford, Manchester.
„	Frederick James Richmond	... Blackpool, Lancashire.
„	John Richard Simpson	... Bedale, Yorkshire.
„	Arthur Joseph Dobbyn	... Waterford, Ireland.
„	William Swithenbank...	... Moorside, Oldham, Lancashire.
„	James Johnston Fraser	... Keith, Banffshire.
„	George Sandeman ...	... Kirriemuir, Forfarshire.
„	Archibald Munro ...	... Salisburgh, Holytown, Lanark.
„	Thomas Caldecott ...	... Knutsford, Cheshire.
„	George Whitehead ...	... Barnsley, Yorkshire.

Messrs. Ingram, Dobbyn, Swithenbank, Fraser, and Whitehead passed with Great Credit.

Edinburgh Veterinary College.

Mr.	Alexander Grey ...	... Edinburgh.
„	William Calvert ...	... Middleham, Yorkshire.
„	William Ryan	... Limerick.
„	William Hill	... Houghton Regis, Beds.
„	Christopher Black ...	... Batterstown, Co. Meath.
„	Alex. Henderson Gentle	... Edinburgh.

Messrs. Grey, Calvert, Ryan, Hill, Black, and Gentle passed with Great Credit.

The following students passed their Second Examination :—

Edinburgh New Veterinary College.

Mr. William Woods.	Mr. William Graham.
„ Thomas Green.	„ John Jones.
„ Isaiah Leather.	„ Chas. James Martin.
„ Fredk. Huntington Osgood.	„ John Francis Healy.
„ Frederick Whittaker.	„ Arthur Frederic Appleton.
„ Henry Cooper.	„ Fred. Eugene Rice.

Mr. Jas. George Bell.

Messrs. Woods, Green, Leather, Whittaker, Graham, Healy, and Rice passed with Great Credit.

Edinburgh Veterinary College.

Mr. Richd. Wm. Burke.	Mr. Lionel Llewelin Leach.
„ Thomas Gilchrist.	„ John Alex. Thompson.
„ James Gibson.	„ William Fairbairn.
„ John Joseph Doyle.	„ Robert Beech.
„ Geo. Marks Davey.	„ Patrick Dundon.
„ Clement Burston.	„ John Beattie.
„ Thomas Wright.	„ William Cassells.
„ John Bull.	„ Peter Manuel.
„ Wm. Watt Dollar.	„ Wm. Jas. Powell.

Mr. Robert Wm. Powell.

Mr. Wm. Watt Dollar passed with Very Great Credit; Messrs. Burke, Gilchrist, Gibson, Doyle, Davey, Burston, Bull, Thompson, Fairbairn, Beech, Cassells, Wm. J. Powell, and Robt. Wm. Powell passed with Great Credit.

The following students passed their First Examination :—

Edinburgh Veterinary College.

Mr. Bernard Martin.
„ Patrick Daniel Reavy.
„ Thomas Cunningham.
„ John Rowland Dykes.
Mr. Geo. William Tennant.
„ Tom Harrison.
„ William Hackett.
„ Wm. Johnston Smith.
Mr. Geo. Wm. McArthur.

Messrs. Harrison and Smith passed with Great Credit.

Edinburgh New Veterinary College.

Mr. George Phelan.
„ Jas. Fraser Murray.
„ John Brizill.
Mr. Joseph Abson.
„ William King.
„ Fredk. Percy Carter.
Mr. Colin Campbell.

Messrs. Phelan, Murray, Brizill, Abson, and King passed with Great Credit.

Jurisprudence.

CRUELTY TO ANIMALS.

At Mundford, on April 6th, before the Revs. A. Sutton and W. W. Hutt, William Pooley, of Northwold, blacksmith, and Farrand Wingfield, of Stoke Ferry, dealer, were charged by Inspector Henry Taylor, of the Royal Society for the Prevention of Cruelty to Animals, with unlawfully and cruelly ill-treating, abusing, and torturing a horse at Methwold, on the 28th February last. Mr. Walpole appeared on behalf of the Society. The facts of the case were that the two defendants cut off a portion of the horse's tail, which is a very common practice, and is called "docking," and in doing this they did it in an unskilful manner, thereby increasing the torture. The practice of late years has been very much discontinued by many respectable horse-dealers, and it has been decided by eminent judges that the practice is cruel within the meaning of the Act. After Mr. Walpole had quoted several cases wherein similar acts, as well as those of cutting the combs of cockerels, etc., had been decided as illegal, he called Mr. Catling, veterinary surgeon to the Metropolitan police force, who produced the portion of the horse's tail that had been cut off, and stated that the operation had been performed in a most unskilful manner, and was attended with the most excruciating pain, as the spinal cord extended quite down the tail of the animal, and when any severance of any part took place the whole of the spinal cord was affected. He was of opinjon that the operation under any circumstances was not necessary or essential—indeed, the practice was a most cruel and unjustifiable one. The Bench inquired of the witness if he practised the operation, and he said he used to do it twenty years ago, but had discontinued it. He had several large places of business in London, and during the past twenty years he had refused to perform the operation hundreds of times, although he or any skilful veterinary surgeon would be able to perform the operation so as to cause less pain than was caused to the animal by the defendants. The Bench expressed their opinion that if it were illegal to "dock" a horse, it was as wrong if skilfully done as unskilfully done. Mr. Catling fully concurred in that opinion. Mr. Hinde, veterinary surgeon of Downham, was prepared to give confirmatory evidence, but was not called. The Bench fined the defendants 1s. each and £3 3s. 3d. costs. The defendant Wingfield strongly protested against the decision of the Bench, and said at first he would go to Norwich Castle rather than pay, but afterwards paid the fine and costs.

Obituary.

THE Registrar reports the following deaths :—

Wm. Garrard, M.R.C.V.S., Picknall, Derbyshire. Diploma dates 29th May, 1844 ; Geo. E. Cooper, M.R.C.V.S., Yeaveley, Derbyshire. Diploma dates 30th April, 1867 ; Fredk. Mather M.R.C.V.S., Daventry. Diploma dates 19th December, 1855.

Army Veterinary Department.

Gazette, April 27th.

VETERINARY DEPARTMENT.—Veterinary Surgeon, First Class, J. G. Berne, from the Royal Artillery, to be Veterinary Surgeon, First Class.

Gazette, May 7th.

VETERINARY DEPARTMENT.—Veterinary Surgeon G. D. Whitfield is placed on temporary half-pay.

The *Army and Navy Gazette* has the following important notice :—" The new Veterinary School which Colonel Stanley announced some time ago in the House that, it was proposed to established, will be started at Aldershot in the course of a week or so, and a warrant has been drawn up by the War Office providing for the necessary appointments in connection therewith. The Professorship is to be filled by Veterinary Surgeon J. Lambert, late of the 17th Lancers, who is recognised as one of the ablest and best-read officers of his department. Mr. Lambert will receive a special allowance of £150 per annum, and he has lately been pursuing a special course of study at Edinburgh, in order to fit himself for the discharge of the duties of his new position."

Notes and News.

HYDROPHOBIA IN SCOTLAND.—As we predicted some time ago cases of Hydrophobia could not fail to occur in Scotland, from the extension of Rabies across the border, and the absence of measures to prevent its spread. Not long ago cases were reported from Glasgow, and since then others have been published. The latest occurred in the person of a strong healthy man, from the village of Alexandria, who was admitted to the Royal Infirmary, Glasgow, on Monday, April 19th. He stated that he had been bitten by a dog in the month of December last. He did not appear to suffer particularly, but presented the characteristic well-marked spasms on attempting to drink any fluids. This condition continued till Thursday night (22nd April), when the patient's state resembled that of a person with Delirium Tremens. On Friday morning he died. What renders the case more interesting, is that in January a man hailing from the same town, and who had been bitten about the same time, came into the hospital and died of Hydrophobia. The treatment adopted in these cases consisted mainly in the hypodermic injection of pilocarpine. Many cases of Rabies have been reported from Edinburgh, and people have been bitten. There is, consequently, every reason to apprehend deaths from Hydrophobia ere long.

THE DISTOMA MUSCULUM.—At a late meeting of the Hertfordshire Natural History Society, Dr. Brett read a paper on " Fluke in Sheep, with Remarks on a new Parasite discovered in the Muscular Fibres of Sheep which have the Rot." His attention was first directed to this new parasite by Dr. Mann, the Medical Officer of Health for Pontypool, and Dr. Brett proposed to name it *Distoma musculum*.

Correspondence, etc.

THE PROFESSION *v.* THE ROYAL VETERINARY COLLEGE.

To the Editor of the VETERINARY JOURNAL.

SIR,—Will you kindly place before your readers the enclosed Report of the Governors of the Royal Veterinary College, which I have just received. I may point out that the Report takes no notice of one of the chief complaints, viz., that apart from the injury to individual members, the profession, as a whole, must be lowered in public estimation by the low fees charged at the College.

That the Governors were convinced of the justness of the complaints advanced is satisfactory; and it is sincerely to be hoped that, having commenced reforms, they will ere long see their way to abolishing the subscription system altogether. This would tend greatly to cement the desired friendship between the college and the profession so essential to the progress of veterinary knowledge, the avowed object of the college.

One of the grounds of complaint, viz., the payment to the college of two guineas for sending a *learned* professor to investigate outbreaks of serious disease, is unaltered. The old fee is to remain; non-subscribers are to pay five guineas instead of three. This arrangement will tend to manufacture subscribers, or else members of the Royal Agricultural Society, who, by paying one guinea, can procure the professor's services for two guineas.

Mr. Collins' data are no refutation of the charge against the college of "underselling." There can be no doubt the college has "undersold" for years, and will continue doing so, although not to so great an extent. "Underselling" consists in undertaking to do work for a lower sum than anyone else could possibly do it. Granted that 1,447 guineas were paid for examining a like number of horses. But suppose each horse belonged to individual subscribers, each of whom sent the full number he *contracted* for, and was entitled to send, the college would have had to examine nearly 30,000 horses for 1,447 guineas, or about *one shilling* each horse.

My labours in the matter of "unfair competition" being presumably at an end, I will take this opportunity of sincerely thanking those gentlemen who have given me valuable advice and support, not, of course, forgetting my provincial correspondents—upwards of 300 in number.

I am, etc.

THOMAS MOORE.

REPORT.

ROYAL VETERINARY COLLEGE,
February 9th, 1880.

YOUR committee, by appointment, met to-day a deputation from the London and Provincial Veterinary Surgeons, who feel aggrieved at what they term "the unfair competition of the Royal Veterinary College with them in their ordinary practice."

The deputation was numerous, and comprised, among others, Messrs. J. Moore, T. Moore, J. Rowe, J. I. Lupton, W. Hunting, W. Helmore, and R. Ward.

The committee invited the members of the deputation to express, either collectively or individually, their grounds of complaint and the remedies which they would suggest.

It soon became obvious that the grounds of complaint were divided into two heads, viz.—1st. The injury done to private practitioners by the privileges enjoyed by subscribers, as sanctioned by the rules of the Royal Veterinary College; and 2nd. The injury also done to them by the alleged practice of the professors of the college among the public.

The committee beg to state that the complaints were very temperately and fairly stated.

With regard to the first ground of complaint—namely, the privileges of subscribers—it was urged by the deputation that though the great majority of the subscribers did not avail themselves of their privileges to any unfair extent, yet there were a certain number of dealers and large firms who did so, and who thus received advantages at the expense of the college, at great loss of time to the professors and to the injury of private practitioners, which was not warranted by the amount of their subscriptions.

The committee think that this complaint is not unreasonable, and suggest, for the consideration of the governors, that the privileges of subscribers should not be taken advantage of to such an extent as to afford fair grounds of complaint.

The object of the college is not profit, but the promotion of veterinary education. It is right that those gentlemen who are kind enough to subscribe towards this desirable object should receive in return some advantages. But it is certainly not the object or wish of the governors to injure or interfere with the fair rights of the veterinary profession.

The committee think that these abuses might be checked without any detriment to the subscribers by restricting the number of horses to be examined in a year to five without fee, or to ten on payment of an additional sum of £2 2*s.*, or at a charge of 10*s.* 6*d.* for each horse above five.

The committee also recommend that the charges per night per horse should be raised from 3*s.* 6*d.* to 4*s.*

The deputation complained of the very low charge made for the visit of a professor in serious outbreaks of disease, viz., £2 2*s.*

The ground of this complaint was not that such visits interfered with the practice of the local veterinary surgeon, for in such cases his daily attendance would, of course, be still required; but the fact that the services of an eminent professor from London could be obtained for £2 2*s.* caused much discontent, and interfered with the usual, and, indeed, proper charge of the local veterinary surgeon.

There is no doubt a good deal of truth in this argument, but, on the other hand, it is desirable, in the best interests of agriculture, that farmers and others should be supplied at a low charge with the best professional advice on the occurrence of serious outbreaks of disease, and the committee therefore do not recommend any alteration in the charge either to the subscribers to the college or to the members of the Royal Agricultural Society; but to non-subscribers the committee recommend that the charge should be raised to £5 5*s.*

The committee think that the profession would be satisfied with these changes; and as they will not affect injuriously, but rather otherwise, the financial interests of the college, they recommend them to the favourable consideration of the governors.

It will be observed that the complaints are not directed against the college generally, but against certain abuses, or, if abuse be too strong a word, against undue advantage being taken by certain individual subscribers.

As regards the college generally, the data collected by Mr. Collins and the secretary from the books show that there is no ground for any charge of "underselling" the profession.*

* [We rely upon the school advertisement for proof of the charge of "underselling" the profession. The following are the terms upon which it seeks to obtain subscribers, and subscribers have a right to exact the fulfilment of the terms, if they choose:—

A subscription of *twenty guineas* entitles the subscriber to all the privileges of the institution, as a general Veterinary Establishment and Hospital for Animals, for life; and an annual subscription of *two guineas* to the same privileges during the continuance of such subscription.

A subscriber is entitled to have admitted into the hospital for medical and surgical treatment an unlimited number of horses or other animals, his own property, at a charge only for their keep. Also, without the payment of fees, to have the opinion of the professors as to the treatment of any animal he may wish to retain in his own establishment.

A subscriber has likewise the privilege of having twenty horses examined *as to soundness* in the course of a year, and to receive the opinion of the professors thereon, either verbally or in writing, free of charge; but if he require an examination of a greater number, a fee of ten shillings and sixpence will have to be paid for each *extra* horse, or the annual payment increased to five guineas.—Ed. *V. J.*]

It appears from those data that in the year past 2,052 patients were treated, and 1,447 horses were examined. In addition to the charge for keep, the subscriptions paid gave an average of £1 1s. for each horse examined, and 9s. for cost of medical treatment for each case.

As regards the second ground of complaint—viz., the practice of the professors in visiting and examining animals outside the college, which was stated to be frequent, no specific instances were brought forward in a way so as to admit of immediate investigation.

The committee could only assure the deputation that any such practice was most strictly prohibited by the terms of the engagement of the professors, and that any cases which they could prove would be visited with the severest penalty. With this assurance the deputation appeared perfectly satisfied.

The deputation also objected to the professors constantly appearing in law courts as witnesses or experts, as interfering with the legitimate practice of the profession.

The committee assured the deputation that the governors were much opposed to the valuable time of their professors being taken up, sometimes for days together, in the law courts; but that a subpœna compelled attendance.

The committee recommend, with a view of discouraging this practice, that the fees received for such attendance be paid into the College Fund.

The deputation likewise objected to the employment of the professors at the Smithfield and Royal Agricultural Shows at a low fee; but on explanation that it was for the good of the public service that the inspectors at these shows should be totally unconnected with breeders and dealers, and also specially skilled in a knowledge of dentition of animals, so as to command public confidence, the deputation withdrew their objection.

The deputation then pressed their objection to the employment of the professors at the Islington and Alexandra and other Horse Shows.

As these shows are private speculations of Limited Liability Companies the committee think that the profession have fair grounds for their objection. When a company make a profit, they may fairly be called on to pay the usual rates. Where a society makes no profit, as the Smithfield Club and Royal Agricultural Society, it is right that the college should afford them every assistance.

The Cheap Practice.

The deputation did not in any way object to the cheap practice lately instituted by the Governors.

The deputation made a suggestion that private veterinary surgeons should be allowed to send interesting cases into the College Infirmary *free of charge*. It was stated that there were many interesting cases which would not pay the owner to have treated on the chance of recovery, and which would therefore be sent to the knackers; but which would be most interesting to keep for further treatment.*

The committee think that there would be a difficulty in doing this, but they also are of opinion that it would be very desirable if it could be arranged. As a matter of fact, there are very few severe cases in the infirmary. The horses belonging to gentlemen are generally treated before the cases become serious, and again, this class of horse seldom meets with the severe accidents so common among a lower class.

The deputation spoke throughout in a very fair and friendly manner, and expressed a cordial wish to work with the Royal Veterinary College.

F. W. Fitzwygram, *Chairman.*
Arthur Somerset.
M. J. Harpley.

Adoption.

At a meeting of the Governors on March 16th, 1880, this Report of the Committee was presented and agreed to, subject to certain necessary alterations in the bye-laws and regulations. *(By order)* Richard A. N. Powys,
Secretary.

* All animals so admitted will become the property of the college; but any animal, if cured, may be reclaimed by its former owner on paying for its keep while under treatment.

A REMINISCENCE OF THE ANNUAL MEETING OF THE R.C.V.S., HELD AT EDINBURGH, MONDAY, MAY 3, 1880.

To the Editor of the VETERINARY JOURNAL.

SIR,—Time has again brought us together to hear the official report of the Council's doings during the past year, and for the first time in the northern capital, an *epocha* in the profession. The *object* being a good and excellent one, it is to be earnestly hoped that those who *can* will cause that *object* to be realised.

The attendance was small, comparatively; and how it was so I am at a loss to explain, considering it is the first meeting in the north. I regret my own absence, legal and private matters being my excuse, and many others have quite as good; but our professors' absence from such a gathering admits of none, as also that of many members of council and vice-presidents.

The report, as of yore, was adopted, and in this instance *sans* the usual debate. And I am surprised *one* question was not asked—an important one, in my opinion—for upon this point the issue of contributions towards the college building fund mainly depends. I allude to the use of the council chamber being granted to the members for the discussion of important matters pertaining to the profession's interests, by requisition, under the bye-laws.

The motion on clause 12, put by a new member, deserves the profession's serious attention, and demands temperate acumen ere the judiciary be issued. For if reports, rumours, scandal, and professional jealousy be permitted to ascend the tribune, sad indeed will be the fate of all of us. In no period of the profession's history have we had such a serious division among its members, which is to be deeply deplored by all right thinking men, whose whole aim should be to *stamp out* this sad condition; for, until this be done, we are *stagnant*.

The matriculation examination came under discussion, and it is to be hoped that uniformity will be reached. To obtain this the R.C.V.S. should be empowered to direct the examinations, and grant the matriculation certificate, which should be in duplicate order: that of the *minimum* for memberships and *maximum* for fellowships. This should, indeed, be demanded out of honesty to the students who anticipate the Fellowships, for at no period will they be so equal to a matriculation as on their entry into professional life and scientific studies.

The omission of the names of the Scotch graduates to honourable mention must have been an oversight; the temperate manner in which this was introduced to the meeting is highly commendable; we may rest assured such an incident will not re-occur under our present able and courteous secretary.

The protection of the profession is another important subject; and to our president *elect*, whoever he may be, a most arduous duty will devolve, which, when consummated, will bring its reward to that individual and repay him in no small measure for the labour and anxiety certain to be incurred.

No penal clause can, it must be remembered, make our profession strong; and unless we bury all rancour with professional jealousy we never shall attain to the proud position we should occupy as students of one of the foremost liberal sciences.

Why on earth we should yield ourselves to be slaves to such unstable motives I cannot divine; from the *humblest* in our ranks to the most "*luminous shining lights*" in it, such unhealthy disposition is most rife at this present; and that *sudden death* may attend and utterly annihilate such *disease* in our body corporate from the moment of the perusal of this, my reminiscence, is the earnest prayer I offer.

Life is too short by far for such evil indulgences. Let us therefore unite this day, before night cometh; and be true to our motto, "*Vis unita fortior.*"

"'Tis in the mind alone our follies lie,
The mind that never from itself can fly."

Now to pastures new. The festive board, in numbers surrounded, on an equality with our London festivity, was an omen of goodwill. The dinner committee deserve well of the members for the very able manner in which their duties were performed.

The usual toasts given and responded to call for nothing but passing notice: Professor Turner giving that of "The R.C.V.S." in a choice and eulogistic manner, which was responded to by the president, who remarked on the ease of office obtained through the most able manner the duties had been performed by his predecessor. Let us hope he will (as doubtless he will) hand the badge of office to his successor with the same *éclat*.

This terminated the first meeting in Edinburgh, which may be taken as a success, and bids well for future anticipations of both pleasure and profit.

In closing, I beg in the most considerate manner to allude to the election of members of council. If other important duties deter a member or members elect from attendance more than once, twice, or, at most, thrice, of what value can such member or members be? Surely members of council should be elected *de facto*, not *pro forma*.

Trusting the new president will find an efficient council, with wholesome deliberations, during his year of office, which I anticipate will be one of hard work, and mark an important epoch in our profession's history,

I subscribe myself as of old,
Yours faithfully,

London, *May 14th*, 1880. "ARTEMUS SECUNDUS."

TO CORRESPONDENTS.

In consequence of the great pressure on our space, a number of Communications and Reports of Societies are held over.

Communications, Books, Journals, etc., Received.

COMMUNICATIONS have been received from M. E. Decroix, Principal Veterinary Surgeon, Paris; T. H. Lewis, Edinburgh; Professor McCall, Glasgow; J. W. Hill, Wolverhampton; W. H. Bartram, London; D. Winton, London; C. Whitworth, London; Professor Smith, Ontario; T. Moore, London; G. A. Banham, London; T. Briggs, Bury; "Diogenes"; A. W. Hill, London; "Artemus Secundus"; "Trembling X"; W. Woods, Wigan; J. W. Rowe, London.

BOOKS AND PAMPHLETS: *Dr. Siedamgrotzky*, Ueber Fleischvergiftungen; *N. Cressy*, Diseased Meat, and its Consequences upon Our Health and Happiness; *E. F. Flower*, The Stones of London; *F. M Röll*, Arzneimittellehre für Thierärzte; *H. W. Pabst*, Anleitung zur Rindviehzucht; Annual Report of the Veterinary Department of the Privy Council, for 1879.

JOURNALS, ETC.: *Archiv für Wissenschaftliche und Practische Thierheilkunde; Students' Journal; Archives Vétérinaires; Lancet; Medical Press and Circular; Annales de Méd. Vétérinaire; Edinburgh Medical Journal; Mark Lane Express; Live Stock Journal; Recueil de Méd. Vétérinaire; Journal of the National Agric. Society of Victoria; L'Echo Vétérinaire; National Live Stock Journal; Wochenschrift für Thierheilkunde and Viehzucht; Der Thierfreund; Repertorium der Thierheilkunde; Der Thierarzt; Oesterreichische Vierteljahresschrift für Wissenschaft Veterinarkunde; Medical Times and Gazette.*

NEWSPAPERS: *Irish Times; Montreal Gazette; Arklow Standard; Montreal Herald; Lynn Advertiser; New York Herald; Scotsman; Edinburgh Courant; Glasgow Herald.*

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